Idejni projekt lokalne ceste

Topić, Mladen

SVEUČILIŠTE U SPLITU

FAKULTET GRAĐEVINARSTVA, ARHITEKTURE I GEODEZIJE

ZAVRŠNI RAD

Mladen Topić

Split, 2022.

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FAKULTET GRAĐEVINARSTVA, ARHITEKTURE I GEODEZIJE

IDEJNI PROJEKT LOKALNE CESTE

Završni rad

Split, 2022.

SVEUČILIŠTE U SPLITU

FAKULTET GRAĐEVINARSTVA, ARHITEKTURE I GEODEZIJE

Split, Matice hrvatske 15

STUDIJ:	**PREDDIPLOMSKI SVEUČILIŠNI STUDIJ GRAĐEVINARSTVA**
KANDIDAT:	**Mladen Topić**
BROJ INDEKSA:	**0083225243 8**
KATEDRA:	**Katedra za prometnice**
PREDMET:	**Ceste**

ZADATAK ZA ZAVRŠNI RAD

Tema: Idejni projekt lokalne ceste

Opis zadatka: Uz pomoć programa za projektiranje cesta AutoCAD Civil 3D potrebno je izraditi idejni projekt ceste na geodetskoj podlozi koja je korištena za izradu programa u okviru kolegija Ceste. Trasa se treba položiti od točke A do točke B koristeći podatke iz programskog zadatka.

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. Obradu 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 lokalne ceste je izrađen na geodetskoj podlozi, prema zadatku iz kolegija Ceste, koristeći se programom AutoCAD Civil 3D. Cesta je projektirana za godišnji dnevni promet (PGDP) od 950 vozila na dan, na brdovitom terenu. Predviđena projektna brzina ceste je 40 km/h. 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, projektna brzina, os ceste, niveleta, poprečni presjek

Conceptual project of local road

Abstract:

A conceptual project of local road, on a geodetic ground according to the task from course „Roads“, is made using software AutoCAD Civil 3D. The road is designed for the annual average daily traffic (AADT) of 950 vehicles per day, on the hilly terrain. The predicted project speed of the road is 40 miles per hour. Preliminary design of local road was created according to the Regulations on the basic conditions for the design of public roads with the elements that meet the applicable rules, as well as safety and aesthetic criteria.

Keywords:

Conceptual project, local road, design speed, the road axis, profile, cross-section

SADRŽAJ

1. PROGRAMSKI ZADATAK

SVEUČILIŠTE U SPLITU
FAKULTET GRAĐEVINARSTVA, ARHITEKTURE I GEODEZIJE

Split, ak.god. 2019/2020.

Katedra za prometnice

Studij: Stručni

Nastavni predmet: CESTE

Student: MLADEN TOPIC

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: **brdovit.**

Idejni projekt treba sadržavati:

1. Tehnički opis
2. Proračun horizontalne geometrije
3. Proračun proširenja kolnika u krivini
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. Troškovnik

Predmetna asistentica:

Daniela Dumanić, mag.ing.aedif.

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 325 metara nadmorske visine, do točke B koja se nalazi na 342.5 metara nadmorske visine. Cesta je projektirana za prosječni dnevni prometod 950 vozila na dan i to na brdovitom terenu (ceste je V. kategorije). Predviđena projektna brzina je 40 km/h.

2.2. Horizontalni elementi

Za navedenu kategoriju prema pravilniku, minimalni radijus horizontalne krivine je 45 m, a prijelaznice 30 m. Trasa kontinuirane ceste ima dužinu od 486.59 m, a sastoji se od četiri pravca i tri krivine. Dvije krivine imaju radijus 50 m, dok treća 100m, a duljinu prijelaznice 40 m, dok ostale dvije 30m.
Svaka krivina je konstruirana pomoću dvije prijelaznice oblika klotoide i jednog kružnog luka. Proširenje kružnog luka za promet teretnih vozila s priključkom u prvoj i u drugoj krivini iznosi 1.68 m.

2.3. Vertikalni elementi

Na temelju kategorije ceste najveći dopušteni nagib nivelete iznosi 12%, a najmanji dopušteni radijus vertikalne krivine 300 m. Tok trase se sastoji od četiri pravca i tri krivine. Nagib prvog pravca iznosi 2.09%, a drugog i trećeg 6,17%. Tangenta krivine je dužine 20.365 m, a radijus konkavne krivine 500 m.

2.4. Poprečni presjek

Projektirana cesta ima dva kolnička traka širine svakog po 3 m, betonski rubni trak širine 0.20 m i bankinu širine 1 m i nagiba 4%. Cesta se dijelom nalazi u zasjeku, a dijelom u usjeku i nasipu. Nagib pokosa nasipa iznosi 1:1, a usjeka 0.5:1. Na usjecima se izvode rigoli za odvodnju vode širine 0.65 m i drenaža koja je postavljena u glinenu posteljicu, a u nasipu se izvode potporni zidovi zbog konfiguracije terena.

2.5. Kolnička konstrukcija

Projektom je predviđena kolnička konstrukcija sa sljedećim slojevima:

- Habajući sloj AC 11 surf (BIT50/70) AG4 M4 u debljini 4 cm
- Nosivi sloj AC 22 base (BIT50/70) AG6 M2 u debljini 6 cm
- Mehanički zbijeni nosivi sloj debljine 30 cm

2.6. Odvodnja

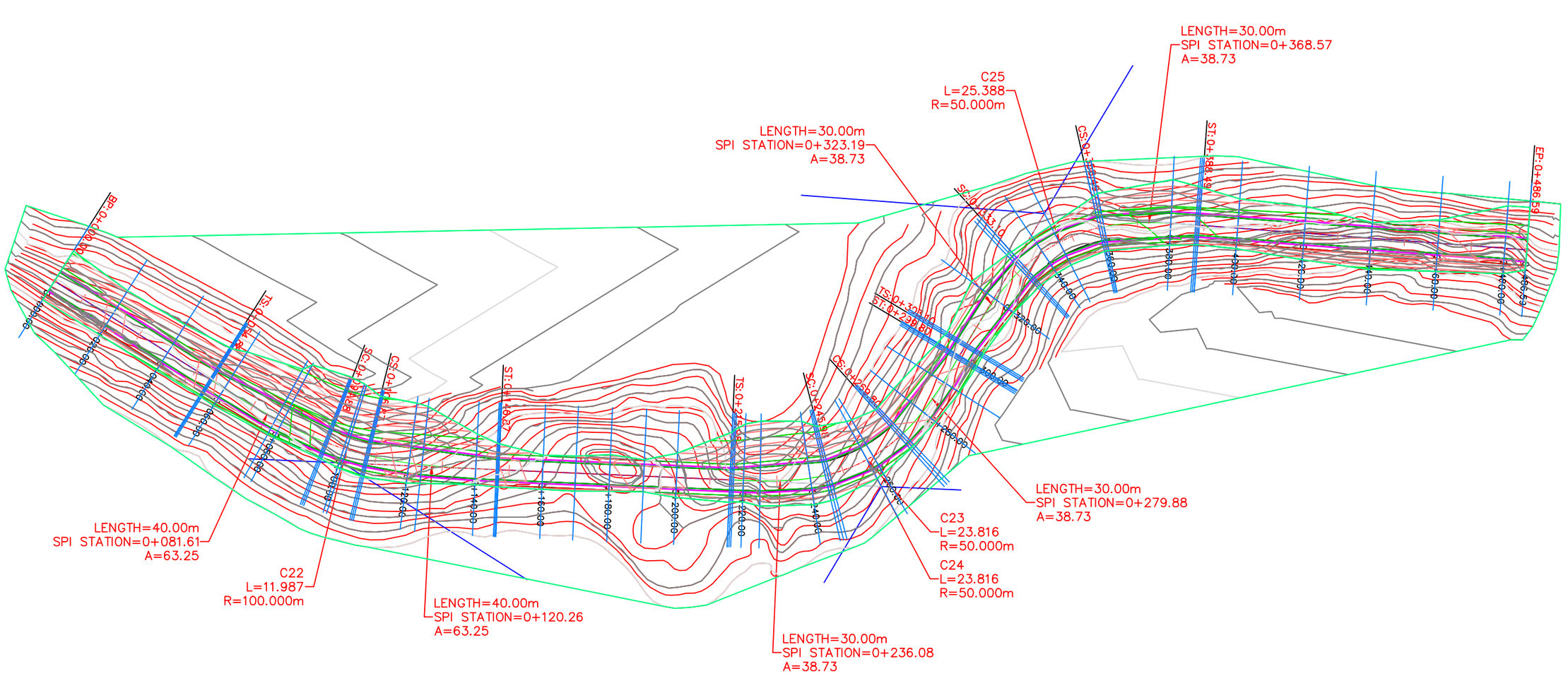
Odvodnja kolnika predviđa se otvorenim sustavom odvodnje prihvaćanjem kolničkih pribrežnih voda u zasjeku i usjeku u betonske rigole te kontroliranim ispuštanjem u teren direktno ili betonskim cijevnim propustima kroz trup kolnika.

2.7. Oprema ceste

Idejnim rješenjem je predviđena horizontalna signalizacija koja se sastoji od jedne pune razdjelne crte širine 10 cm koja se postavlja u osi prometnice i punih rubnih crta širine 10 cm koje se postavljaju na svaki od rubnih trakova. Na nasip se postavlja jednostrana zaštitna čelična ograda.

3. GRAFIČKI PRILOZI

3.1. Situacija M 1:1000



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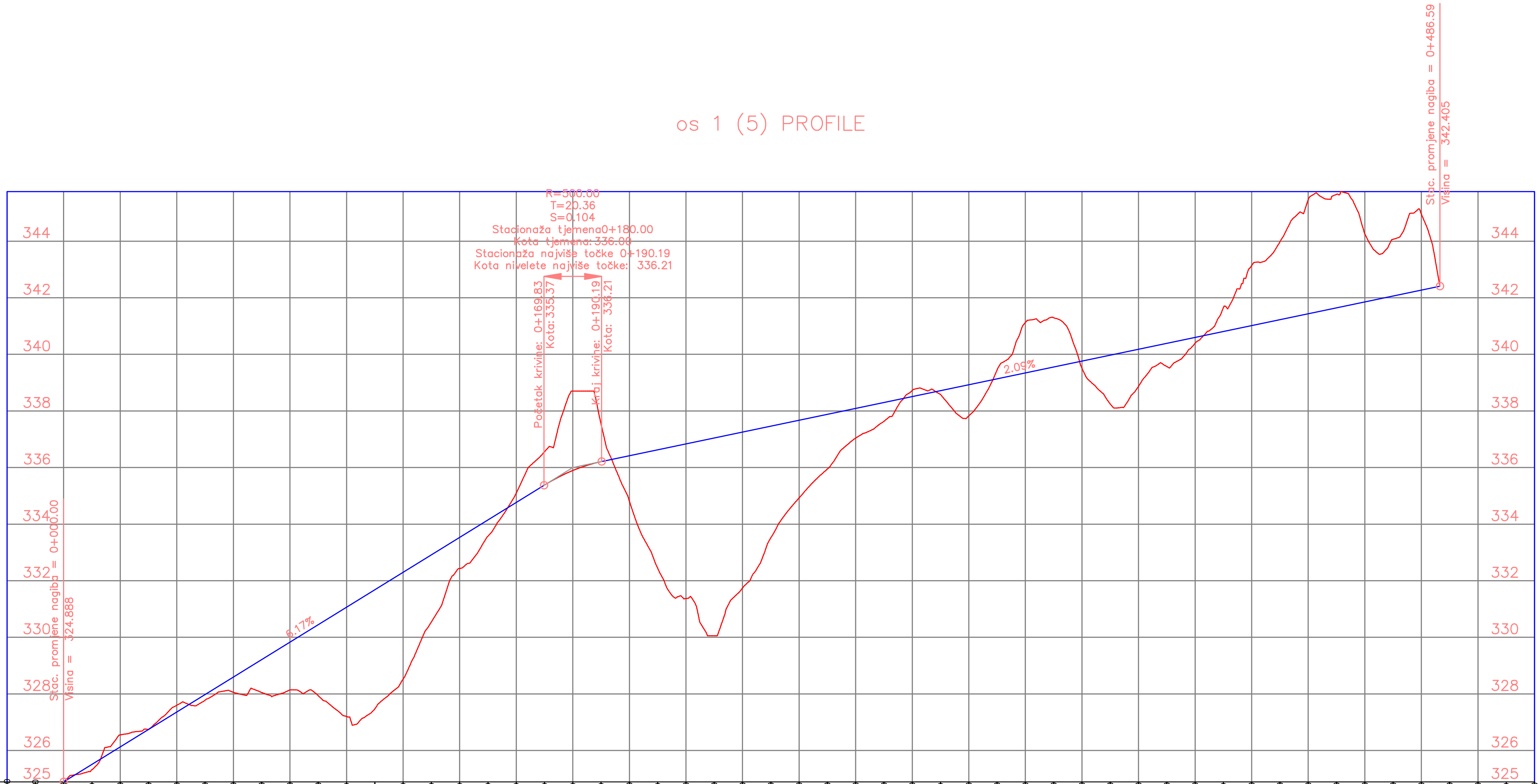
ZADATAK	IDEJNI PROJEKT	
SADRŽAJ	GRAĐEVINKSA SITUACIJA	M 1:1000
STUDENT	MLADEN TOPIĆ	

3.2. Uzdužni presjek M 1:1000/100

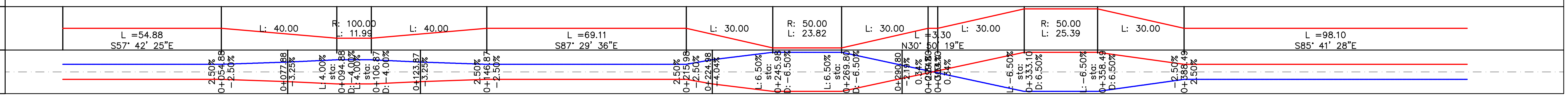
os 1 (5) PROFILE



Stacionaža	Kote nivelete	Kote terena
-0+020.00		
-0+010.00		
0+000.00	324.89	324.89
0+010.00	325.51	325.32
0+020.00	326.12	326.55
0+030.00	326.74	326.75
0+040.00	327.36	327.60
0+050.00	327.97	327.78
0+060.00	328.59	328.06
0+070.00	329.21	328.05
0+080.00	329.83	328.14
0+090.00	330.44	327.94
0+100.00	331.06	327.20
0+110.00	331.68	327.47
0+120.00	332.30	328.52
0+130.00	332.91	330.54
0+140.00	333.53	332.43
0+150.00	334.15	333.57
0+160.00	334.77	335.09
0+170.00	335.38	336.56
0+180.00	335.90	338.70
0+190.00	336.21	337.53
0+200.00	336.42	334.81
0+210.00	336.63	332.44
0+220.00	336.84	331.37
0+230.00	337.04	330.06
0+240.00	337.25	331.74
0+250.00	337.46	333.52
0+260.00	337.67	334.92
0+270.00	337.88	335.95
0+280.00	338.09	337.04
0+290.00	338.30	337.63
0+300.00	338.51	338.72
0+310.00	338.72	338.58
0+320.00	338.92	337.82
0+330.00	339.13	339.45
0+340.00	339.34	341.12
0+350.00	339.55	341.29
0+360.00	339.76	339.51
0+370.00	339.97	338.24
0+380.00	340.18	338.87
0+390.00	340.39	339.57
0+400.00	340.60	340.39
0+410.00	340.80	341.65
0+420.00	341.01	343.14
0+430.00	341.22	343.98
0+440.00	341.43	345.47
0+450.00	341.64	345.65
0+460.00	341.85	344.27
0+470.00	342.06	344.07
0+480.00	342.27	344.96
0+490.00		
0+500.00		
0+510.00		
0+520.00		

Horizontalni elementi

Vitoperenje



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PREDMET	CESTE–ZAVRSŠNI RAD	GODINA 2021./2022.
ZADATAK	IDEJNI PROJEKT	
SADRŽAJ	UZDUŽNI PRESJEK	M 1:1000/100
STUDENT	MLADEN TOPIĆ	

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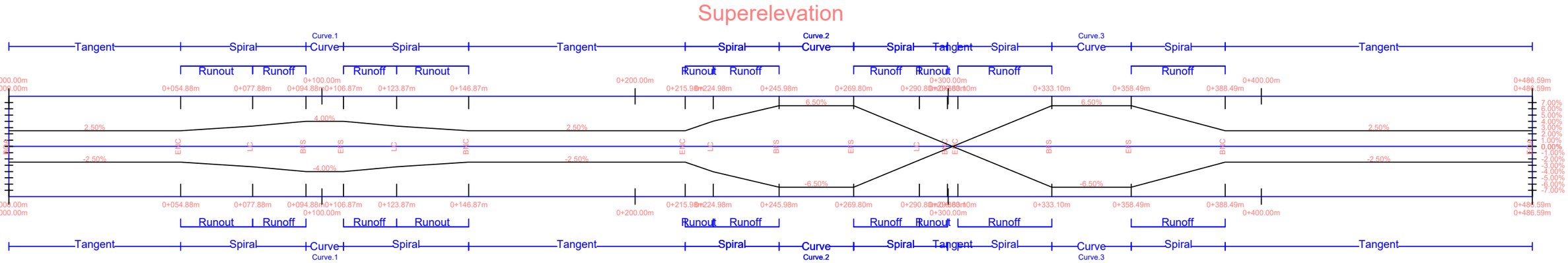

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PREDMET	CESTE–ZAVRSŠNI RAD	GODINA 2021./2022.
ZADATAK	IDEJNI PROJEKT	
SADRŽAJ	DIJAGRAM VITOPERENJA	M 1:1000
STUDENT	MLADEN TOPIĆ	

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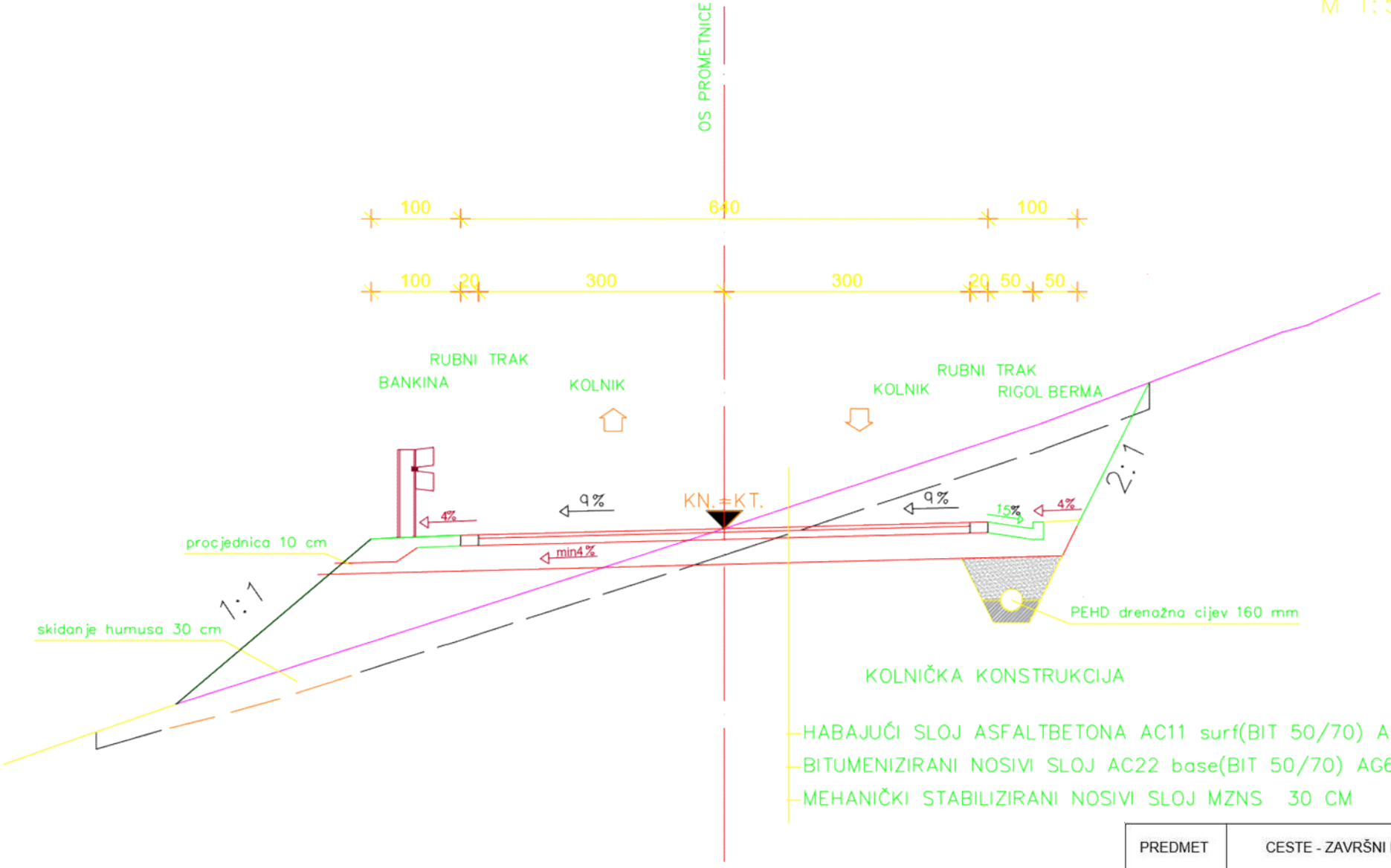
3.3. Normalni poprečni presjek M 1:50

NORMALNI POPREČNI PRESJEK

M 1:50



KOLNIČKA KONSTRUKCIJA

HABAJUĆI SLOJ ASFALTBETONA AC11 surf(BIT 50/70) AG4 M4 4 CM

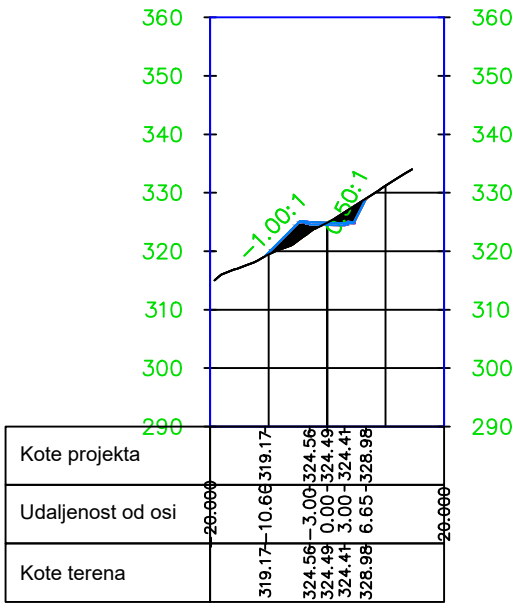
BITUMENIZIRANI NOSIVI SLOJ AC22 base(BIT 50/70) AG6 M2 8 CM

MEHANIČKI STABILIZIRANI NOSIVI SLOJ MZNS 30 CM

PREDMET	CESTE - ZAVRŠNI RAD	GODINA 2021./2022.
PROGRAM	IDEJNI PROJEKT	
SADRŽAJ	NORMALNI POPREČNI PRESJEK	M 1:50
STUDENTICA	MLADEN TOPIĆ	

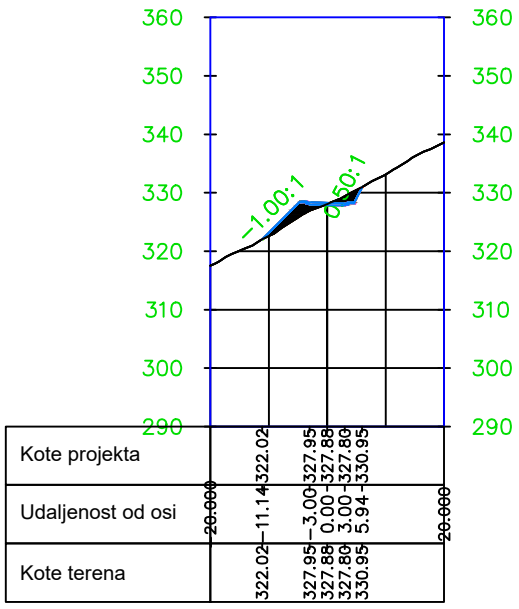
3.4. Karakteristični poprečni presjeci M 1:200

0+000.00



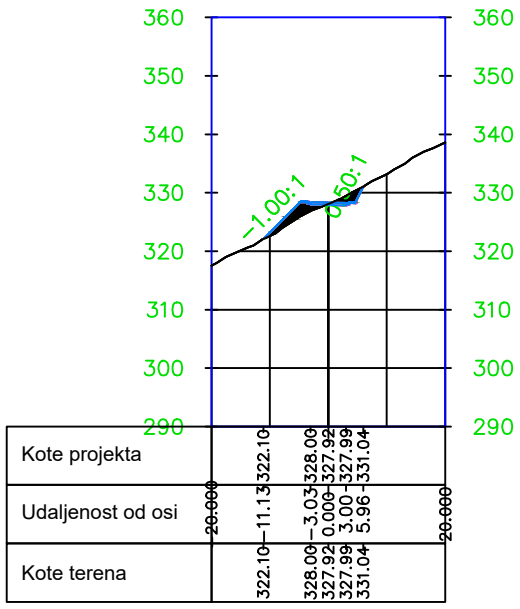
Kote projekta		319.17	324.56	324.49	324.41	328.98
Udaljenost od osi	20.000	10.66	3.00	0.00	3.00	6.65	20.000
Kote terena		319.17	324.56	324.49	324.41	328.98

0+054.88



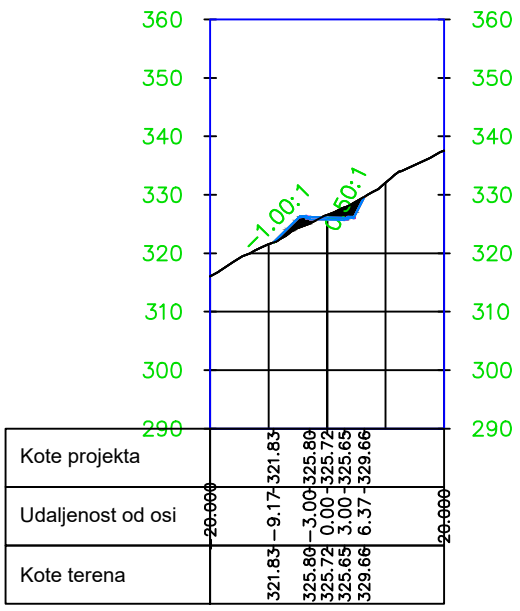
Kote projekta		322.02	327.95	327.88	327.80	330.95
Udaljenost od osi	20.000	11.14	3.00	0.00	3.00	5.94	20.000
Kote terena		322.02	327.95	327.88	327.80	330.95

0+055.61



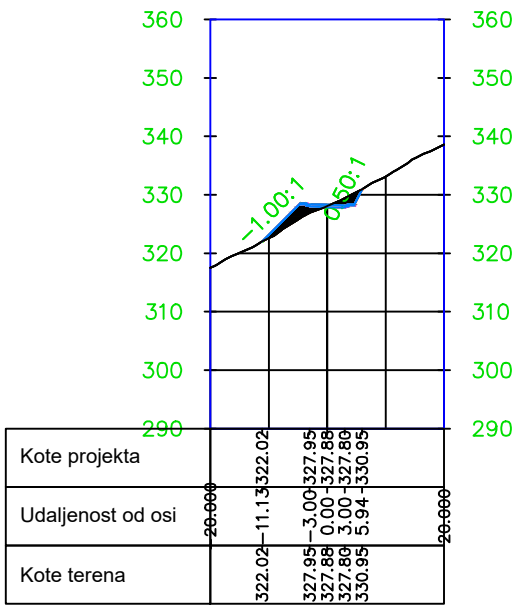
Kote projekta		322.10	328.00	327.92	327.99	331.04
Udaljenost od osi	20.000	11.13	3.03	0.000	3.00	5.96	20.000
Kote terena		322.10	328.00	327.92	327.99	331.04

0+020.00



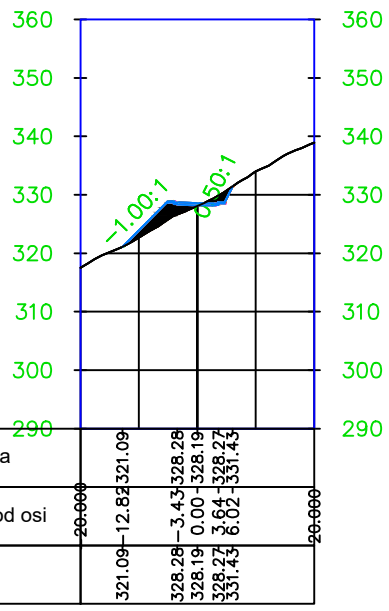
Kote projekta		321.83	325.80	325.72	325.65	329.66
Udaljenost od osi	20.000	9.17	3.00	0.00	3.00	6.37	20.000
Kote terena		321.83	325.80	325.72	325.65	329.66

0+054.88



Kote projekta		322.02	327.95	327.88	327.80	330.95
Udaljenost od osi	20.000	11.13	3.00	0.00	3.00	5.94	20.000
Kote terena		322.02	327.95	327.88	327.80	330.95

0+060.00



Kote projekta		321.09	328.28	328.19	328.27	331.43
Udaljenost od osi	20.000	12.82	3.43	0.00	3.64	6.02	20.000
Kote terena		321.09	328.28	328.19	328.27	331.43

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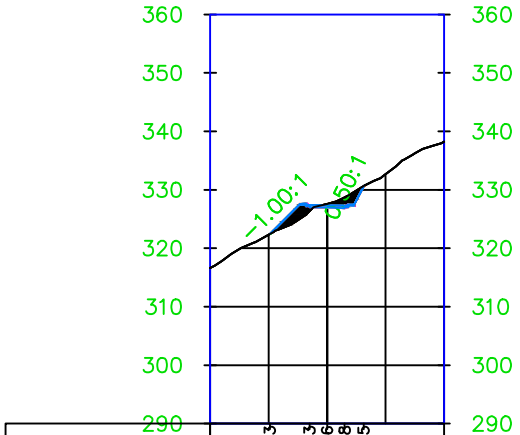
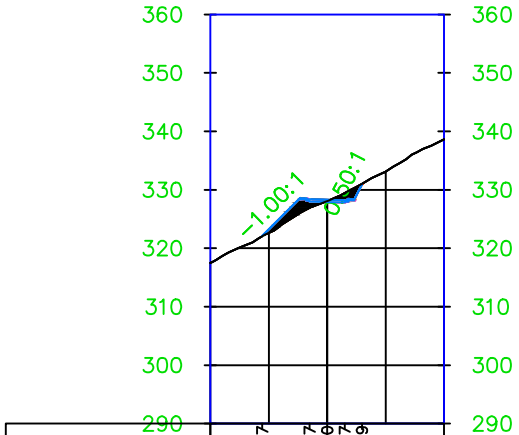


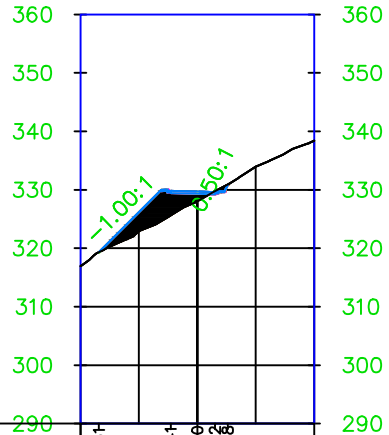
Kote projekta		322.43	327.03	326.96	326.88	330.65
Udaljenost od osi	20.000	9.80	3.00	0.00	3.00	6.25	20.000
Kote terena		322.43	327.03	326.96	326.88	330.65

0+055.25



Kote projekta		322.07	327.97	327.90	327.97	330.99
Udaljenost od osi	20.000	11.11	3.01	0.000	3.00	5.95	20.000
Kote terena		322.07	327.97	327.90	327.97	330.99

0+077.88



Kote projekta		319.31	329.41	329.30	329.26	330.88
Udaljenost od osi	20.000	16.84	4.54	0.000	3.00	5.19	20.000
Kote terena		319.31	329.41	329.30	329.26	330.88

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PREDMET	CESTE–ZAVRSŠNI RAD	GODINA 2021./2022.
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SADRŽAJ	KARAKT. POP. PRESJECI	M 1:200
STUDENT	MLADEN TOPIĆ	

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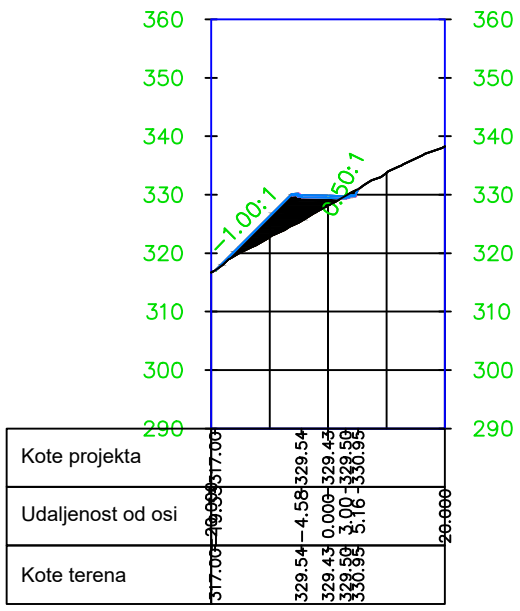
0+080.00



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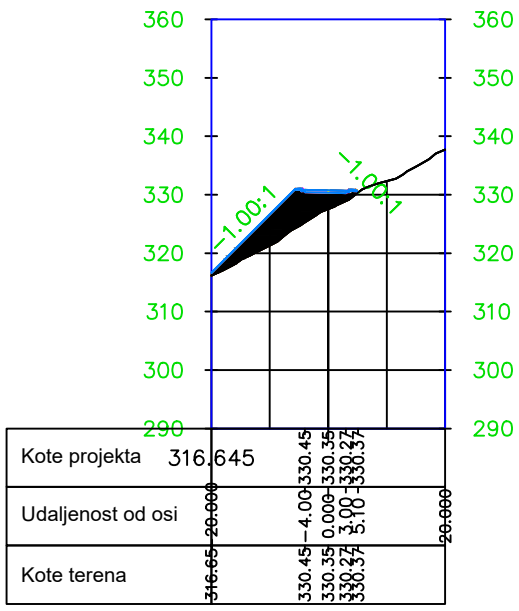

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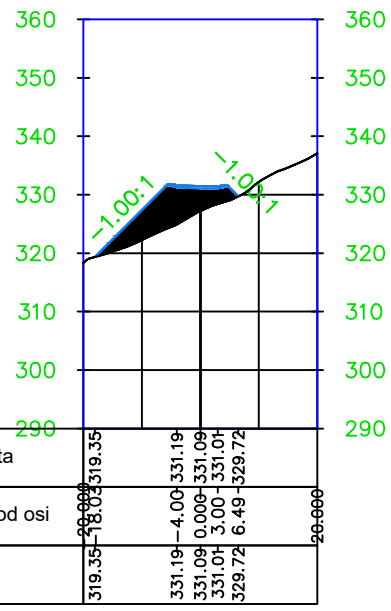

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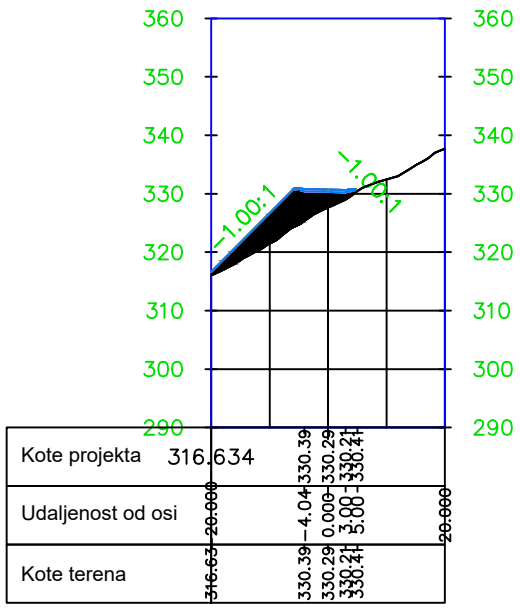

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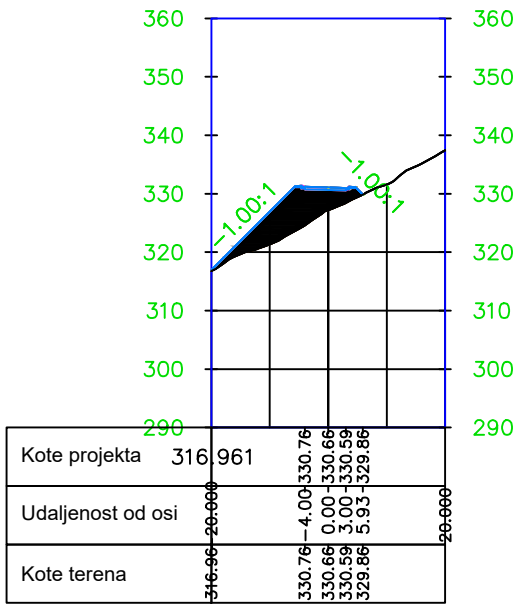

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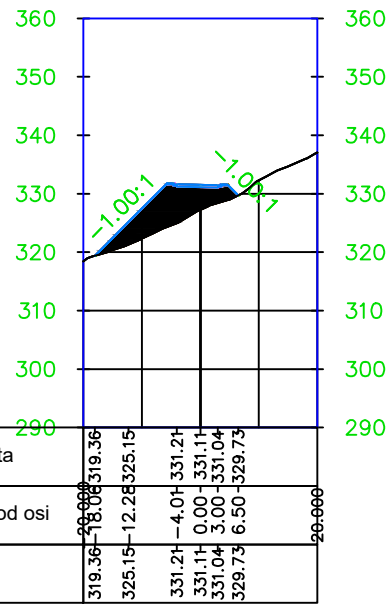

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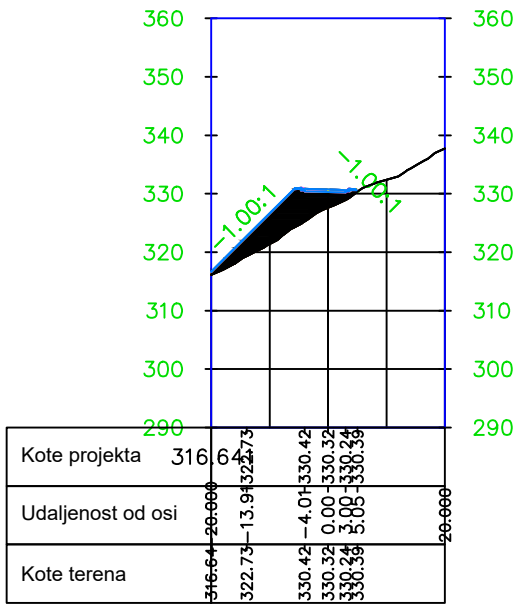

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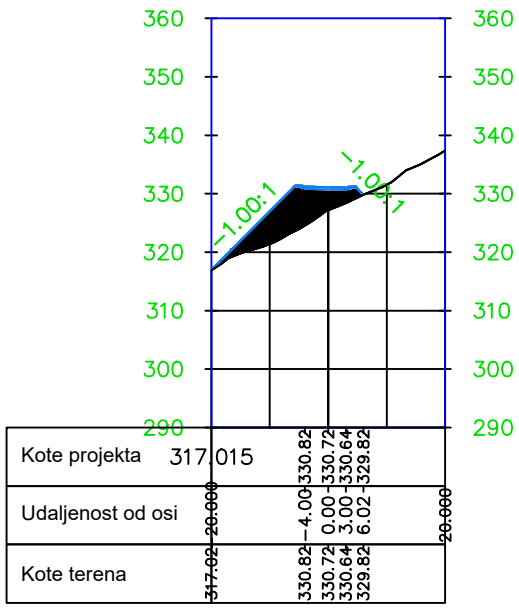

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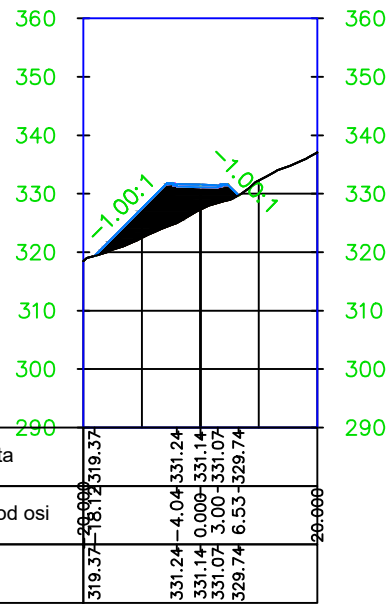

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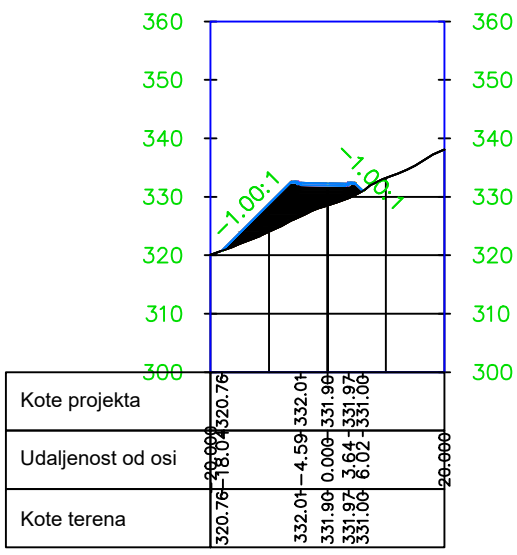
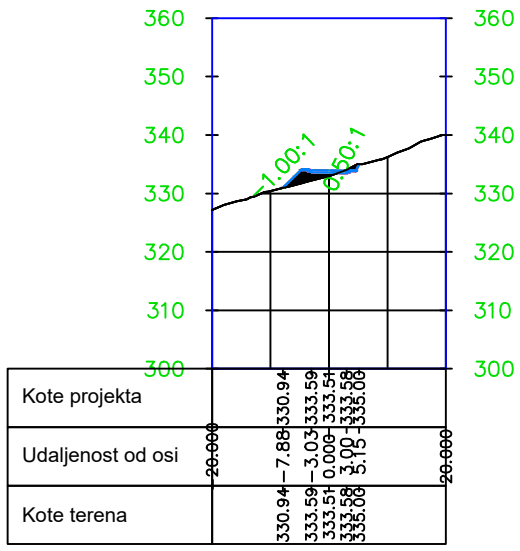
PREDMET	CESTE–ZAVRSŠNI RAD	GODINA 2021./2022.
ZADATAK	IDEJNI PROJEKT	
SADRŽAJ	KARAKT. POP. PRESJECI	M 1:200
STUDENT	MLADEN TOPIĆ	

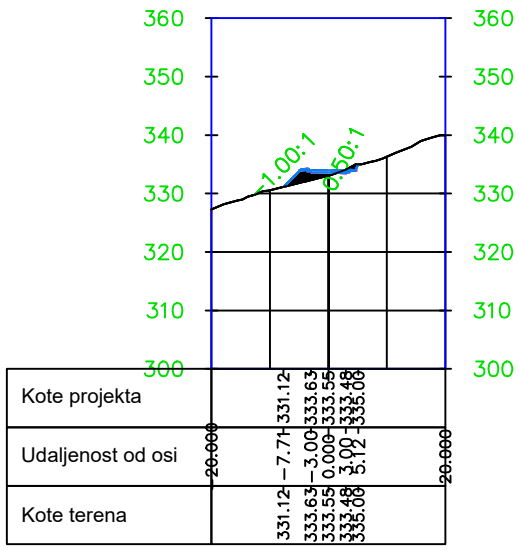
0+120.00



0+146.14



0+146.87



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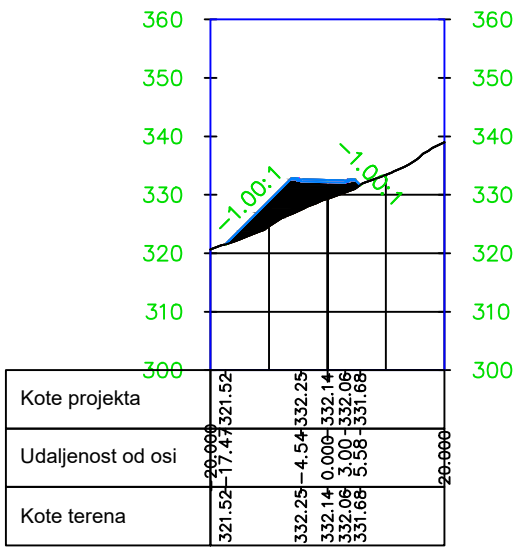

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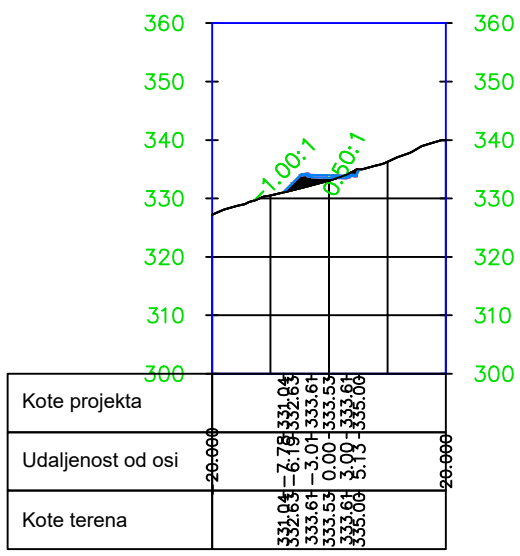

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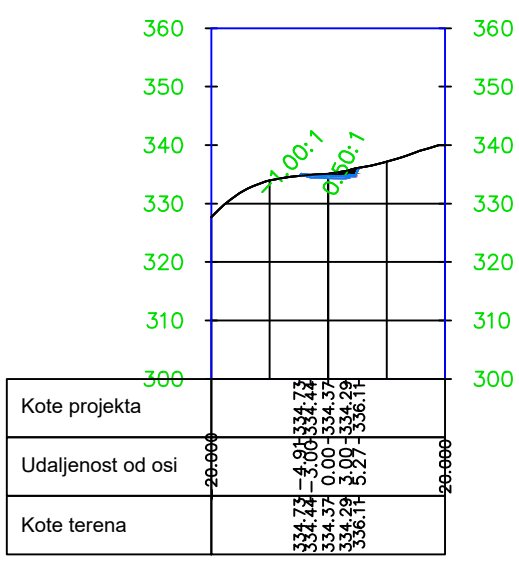

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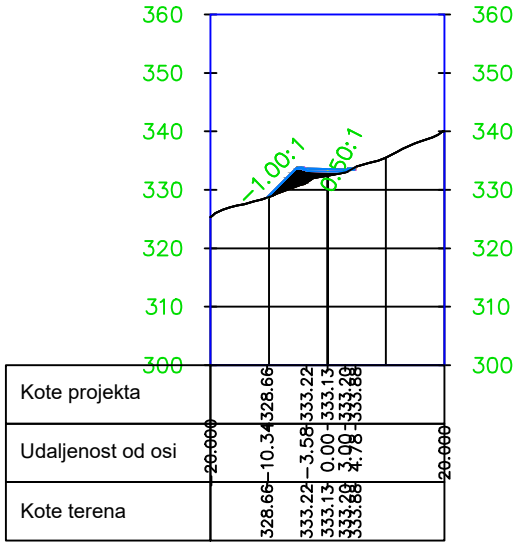
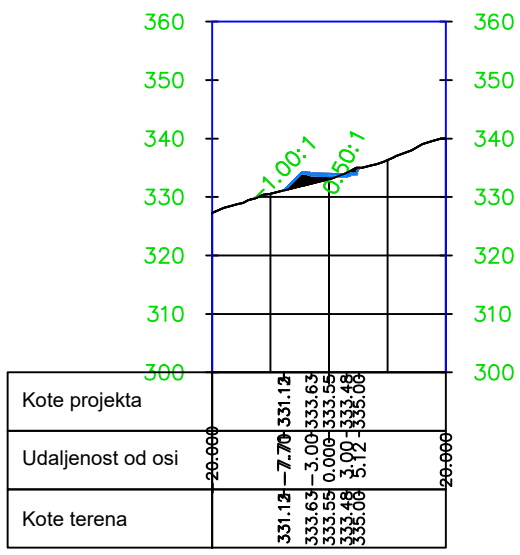
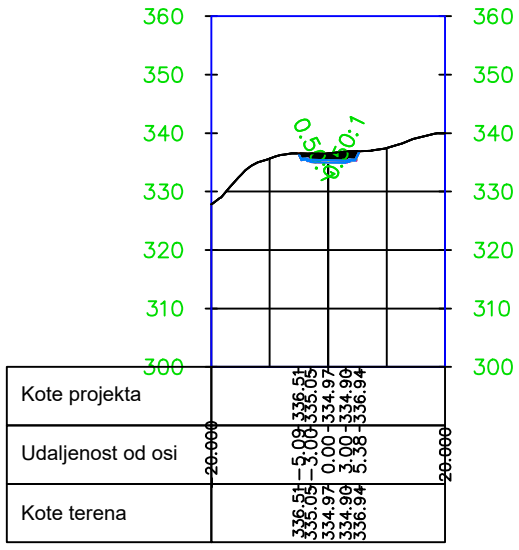


0+146.87

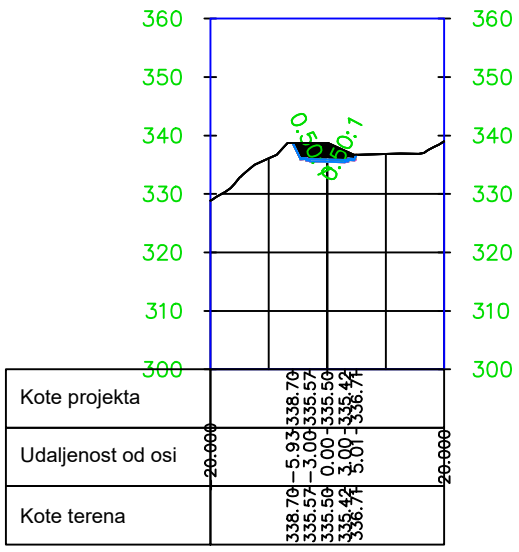


0+169.83



FAKULTET GRAĐEVINARSTVA, ARHITEKTURE I GOEDEZIJE		
PREDMET	CESTE–ZAVRSŠNI RAD	GODINA 2021./2022.
ZADATAK	IDEJNI PROJEKT	
SADRŽAJ	KARAKT. POP. PRESJECI	M 1:200
STUDENT	MLADEN TOPIĆ	

0+180.00



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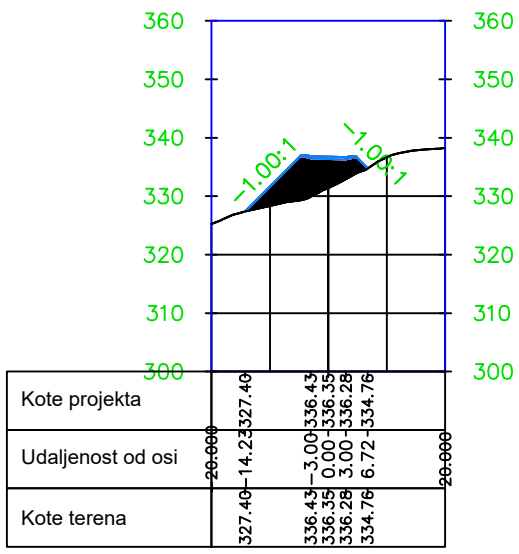
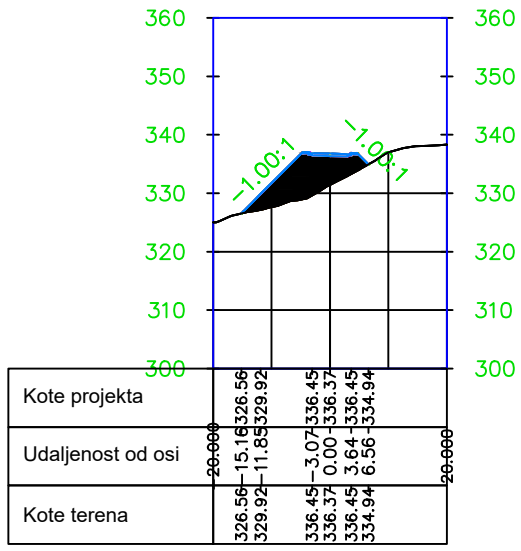
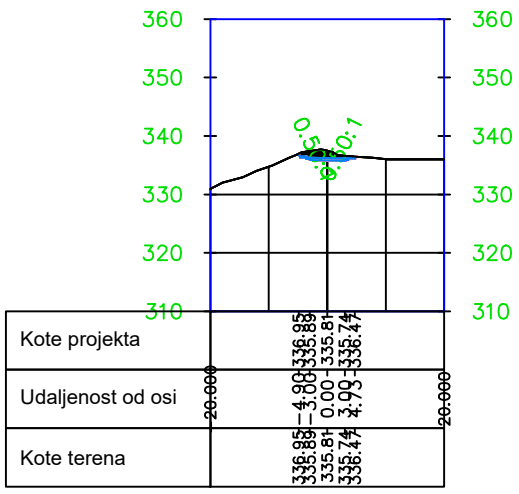


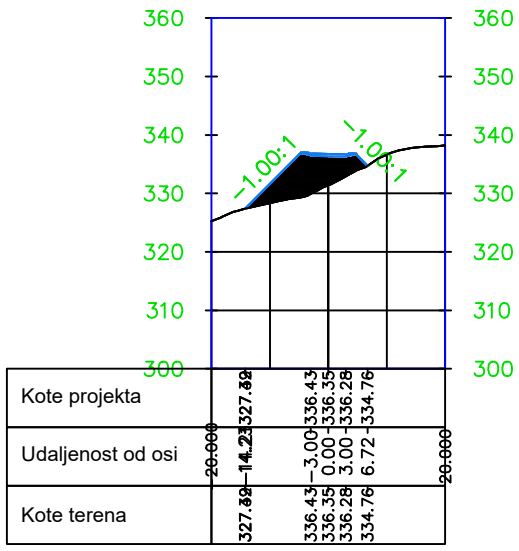
0+217.03



0+190.19



0+215.98



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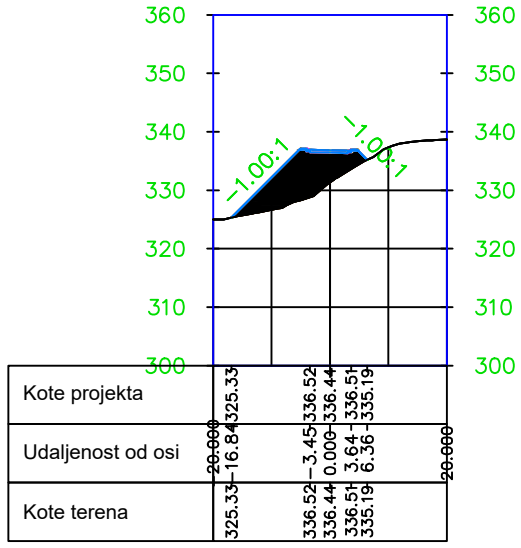
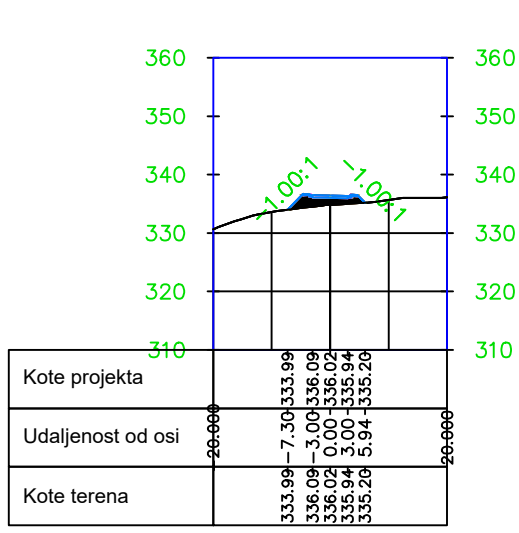


0+200.00



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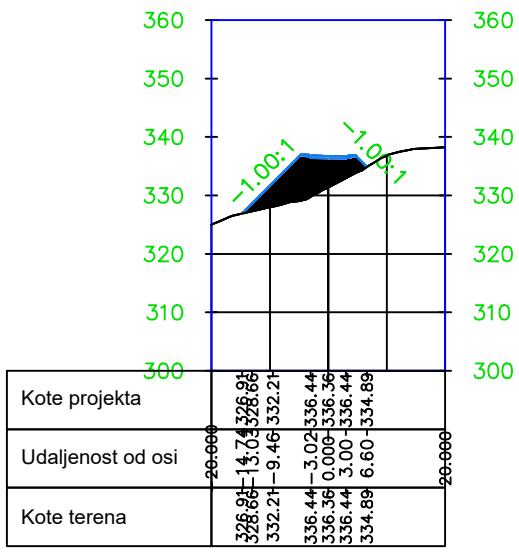
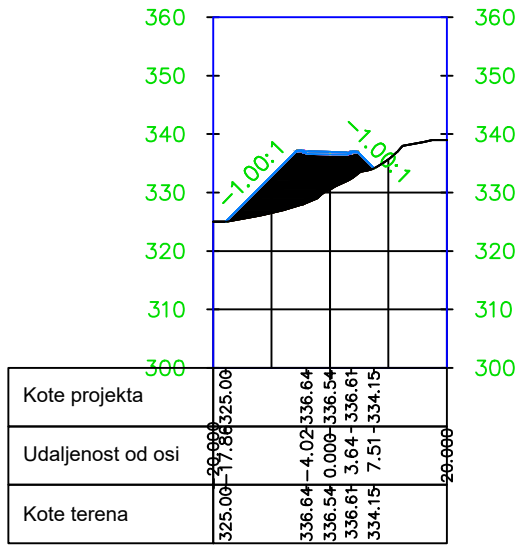
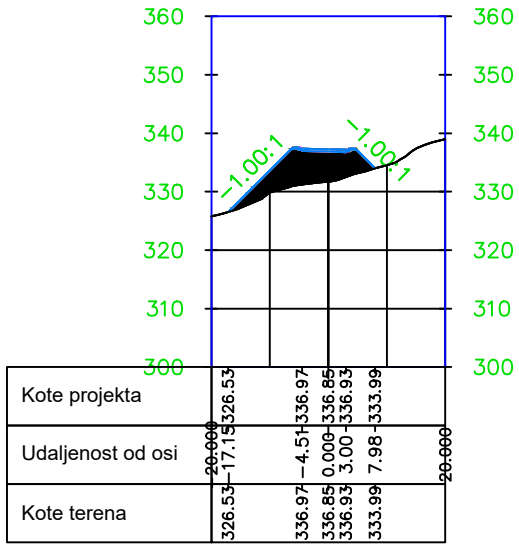


0+224.98



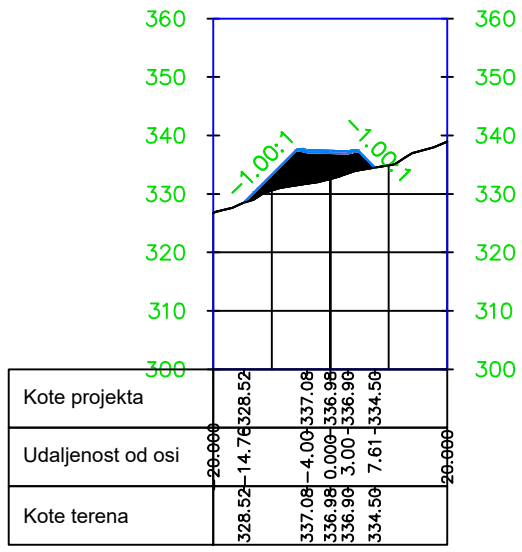
FAKULTET GRAĐEVINARSTVA, ARHITEKTURE I GOEDEZIJE		
PREDMET	CESTE–ZAVRSŠNI RAD	GODINA 2021./2022.
ZADATAK	IDEJNI PROJEKT	
SADRŽAJ	KARAKT. POP. PRESJECI	M 1:200
STUDENT	MLADEN TOPIĆ	

0+240.00



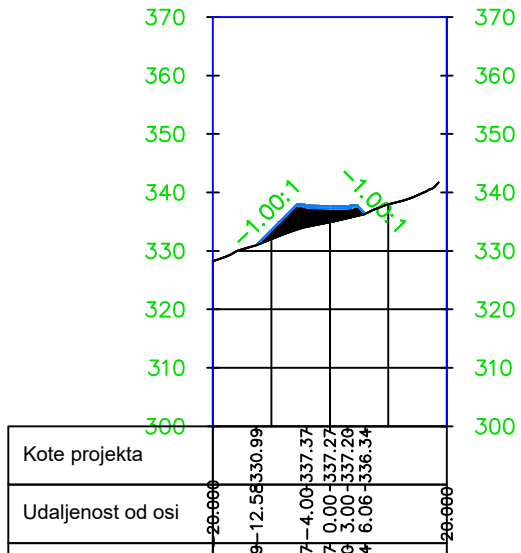
Kote projekta	326.53	326.53	336.97	336.97	336.85	336.93
Udaljenost od osi	20.000	17.15	4.51	0.000	3.00	7.98
Kote terena	326.53	336.97	336.85	336.93	333.99	20.000

0+245.98



Kote projekta	328.52	328.52	337.08	337.08	336.98	336.90
Udaljenost od osi	20.000	14.76	4.00	0.000	3.00	7.61
Kote terena	328.52	337.08	336.98	336.90	334.50	20.000

0+260.00



Kote projekta	330.99	330.99	337.37	337.37	337.27	337.20
Udaljenost od osi	20.000	12.56	4.00	0.00	3.00	6.06
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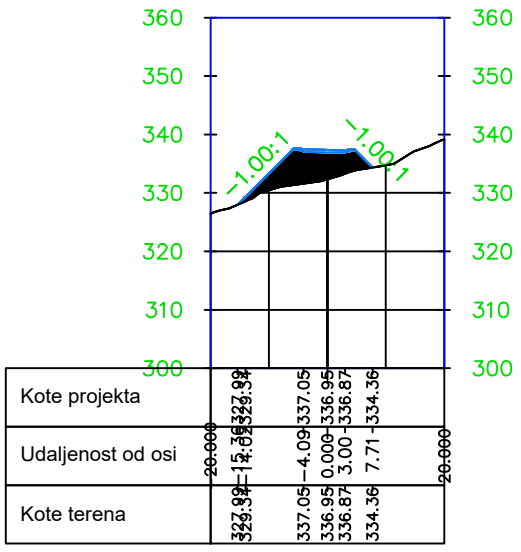
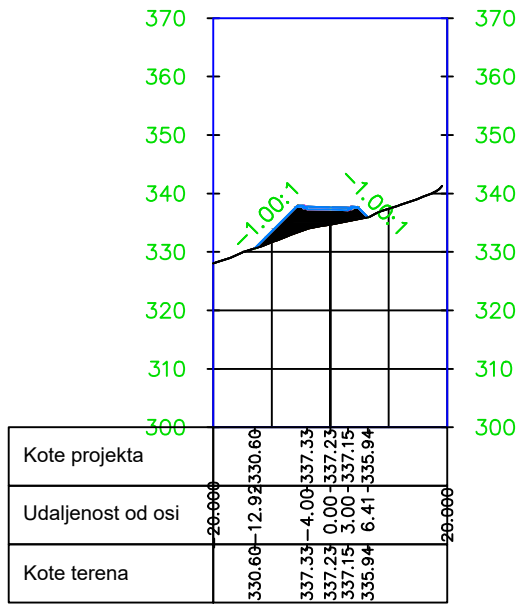
0+244.52



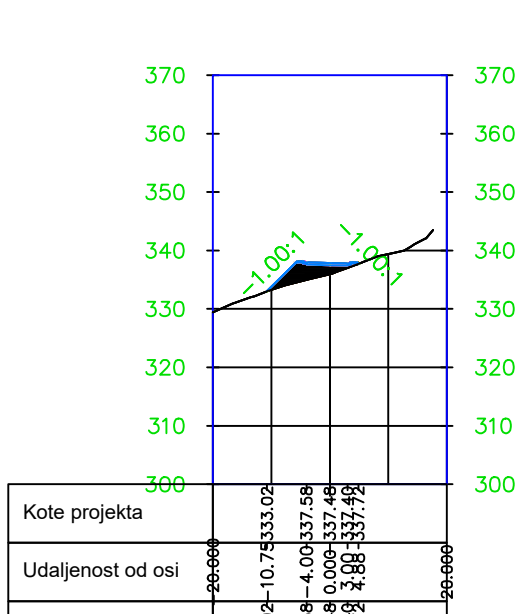
Kote projekta	327.88	327.88	337.05	337.05	336.95	336.87
Udaljenost od osi	20.000	15.36	4.09	0.000	3.00	7.71
Kote terena	327.88	337.05	336.95	336.87	334.36	20.000

0+257.89



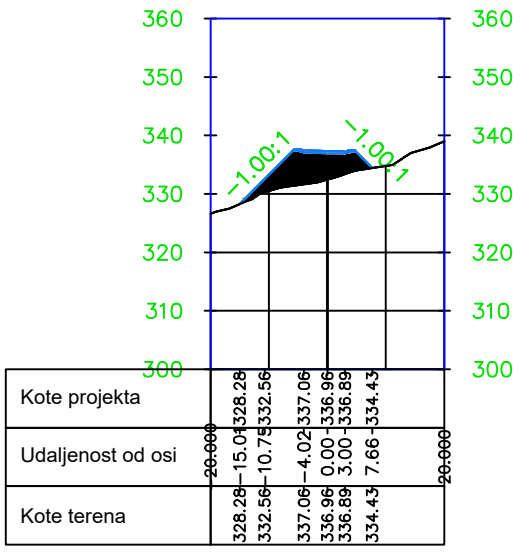
Kote projekta	330.60	330.60	337.33	337.33	337.23	337.15
Udaljenost od osi	20.000	12.92	4.00	0.00	3.00	6.41
Kote terena	330.60	337.33	337.23	337.15	335.94	20.000

0+269.80



Kote projekta	333.02	333.02	337.58	337.58	337.48	337.40
Udaljenost od osi	20.000	10.75	4.00	0.000	3.00	4.88
Kote terena	333.02	337.58	337.48	337.40	337.72	20.000

0+245.25



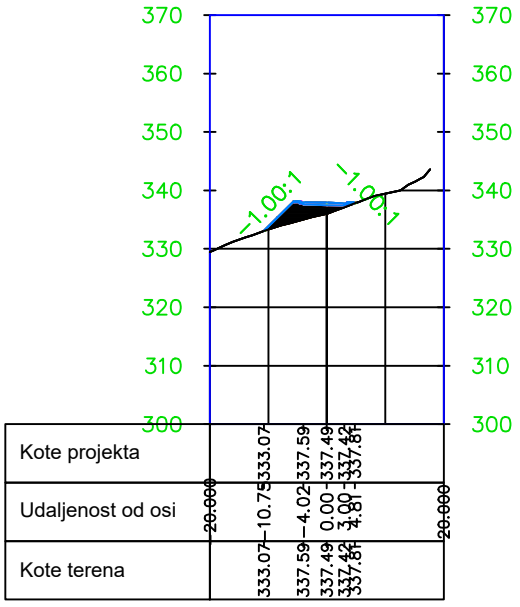
Kote projekta	328.28	328.28	337.06	337.06	336.96	336.89
Udaljenost od osi	20.000	15.01	4.02	0.000	3.00	7.66
Kote terena	328.28	337.06	336.96	336.89	334.43	20.000

FAKULTET GRAĐEVINARSTVA, ARHITEKTURE I GOEDEZIJE		
PREDMET	CESTE–ZAVRSŠNI RAD	GODINA 2021./2022.
ZADATAK	IDEJNI PROJEKT	
SADRŽAJ	KARAKT. POP. PRESJECI	M 1:200
STUDENT	MLADEN TOPIĆ	

PRODUCED BY AN AUTODESK STUDENT VERSION

PRODUCED BY AN AUTODESK STUDENT VERSION

0+270.53



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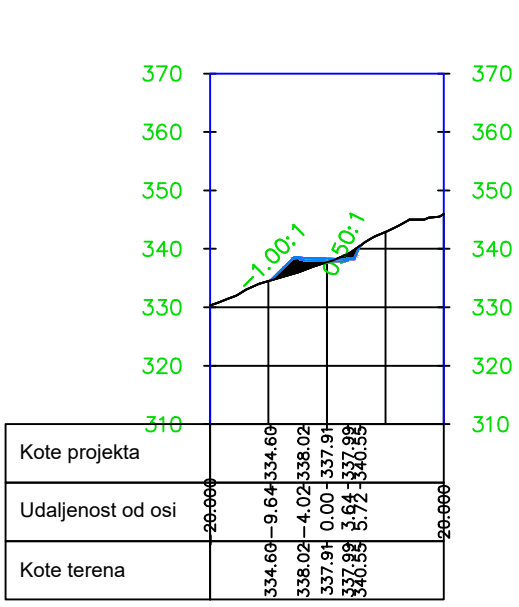
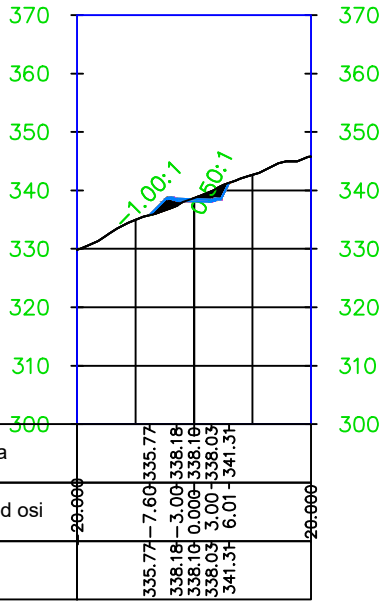
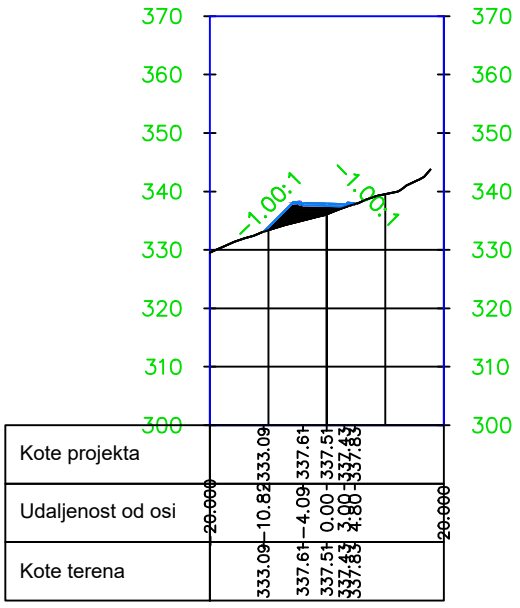


0+299.80



0+271.26



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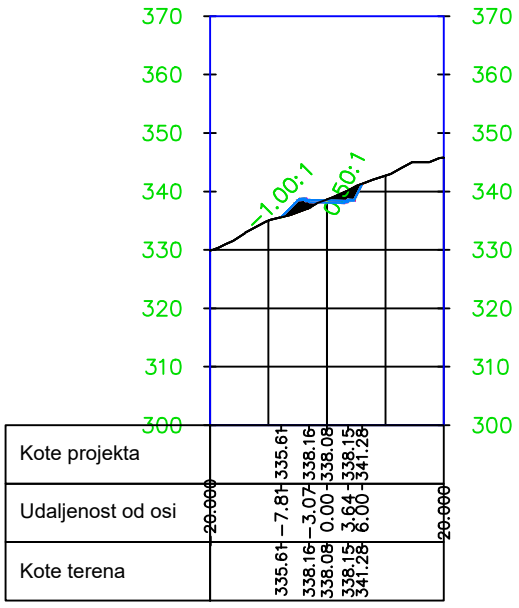

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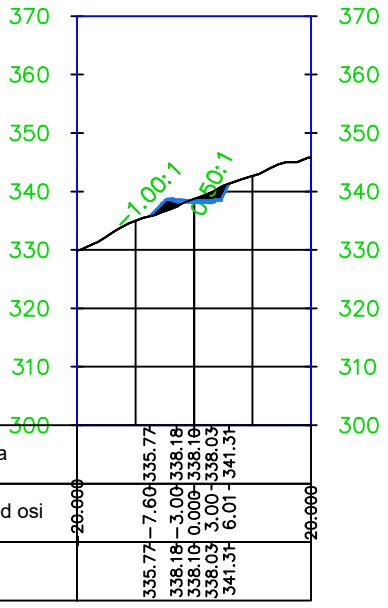

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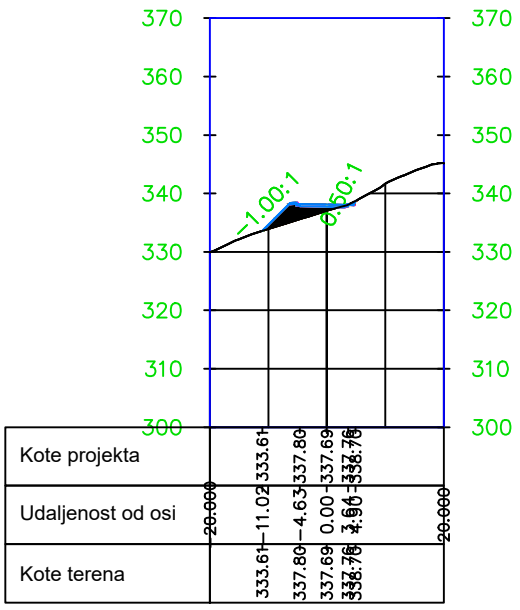
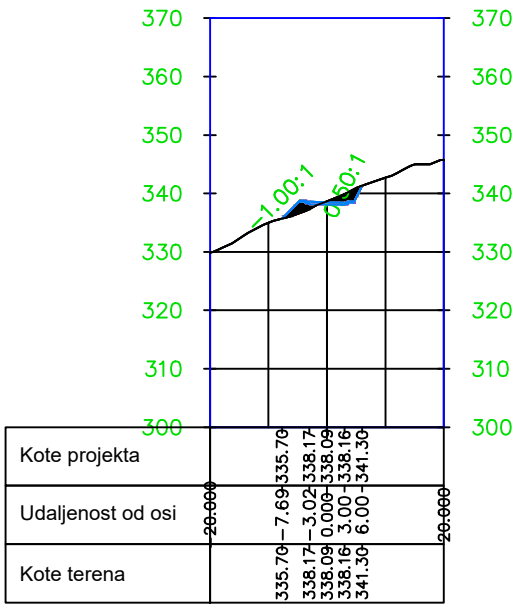


0+299.27



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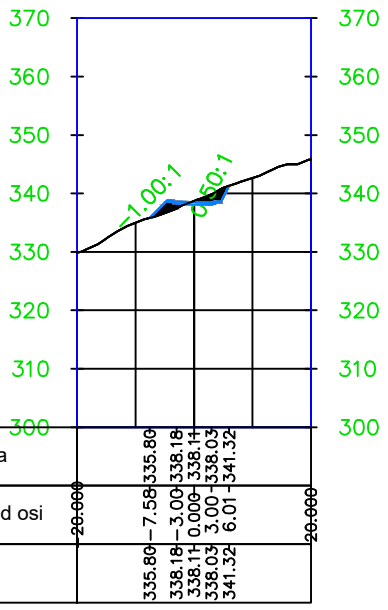
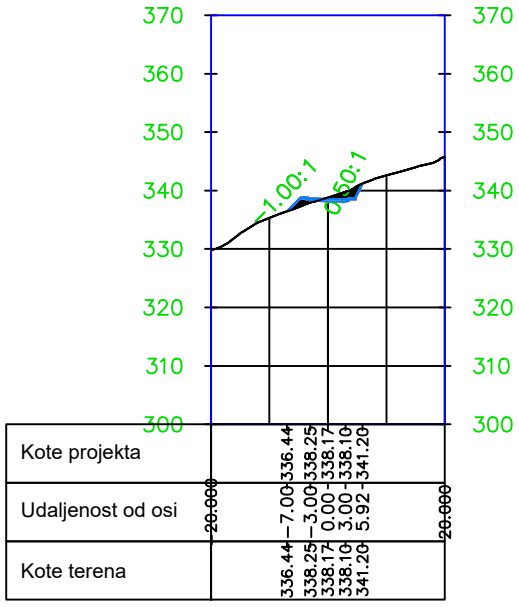


FAKULTET GRAĐEVINARSTVA, ARHITEKTURE I GOEDEZIJE		
PREDMET	CESTE–ZAVRSŠNI RAD	GODINA 2021./2022.
ZADATAK	IDEJNI PROJEKT	
SADRŽAJ	KARAKT. POP. PRESJECI	M 1:200
STUDENT	MLADEN TOPIĆ	

0+303.10



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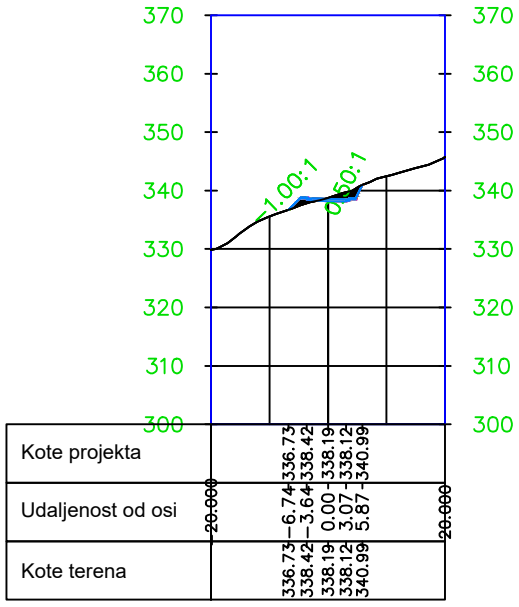

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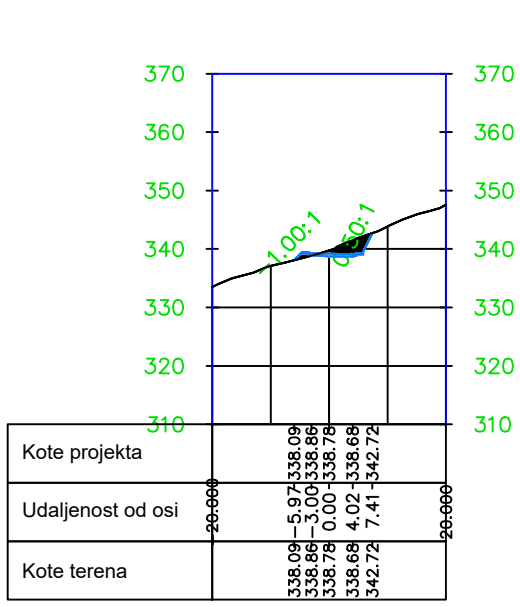

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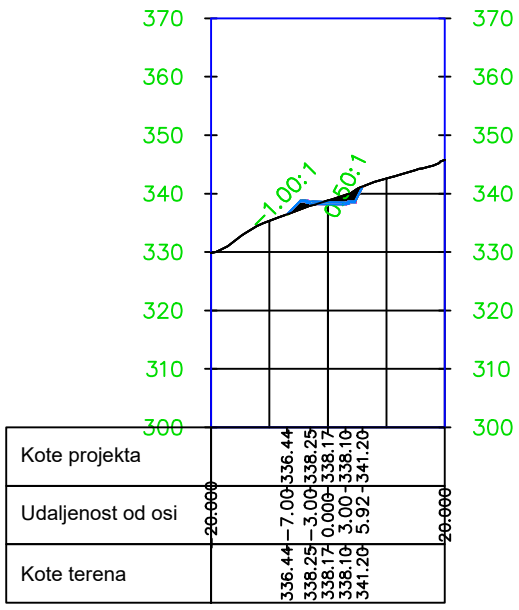

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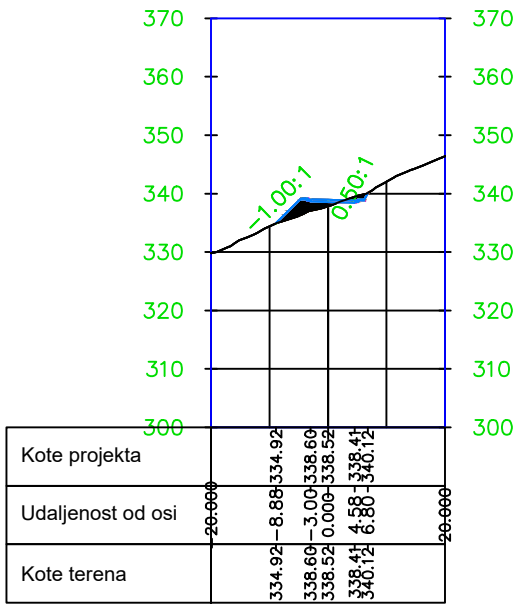
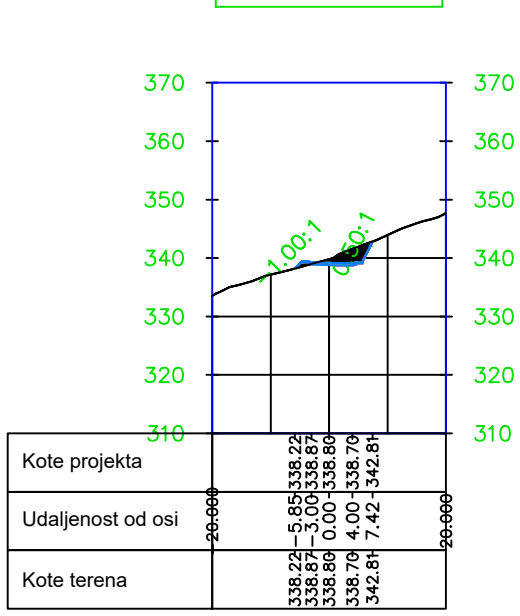


0+333.10



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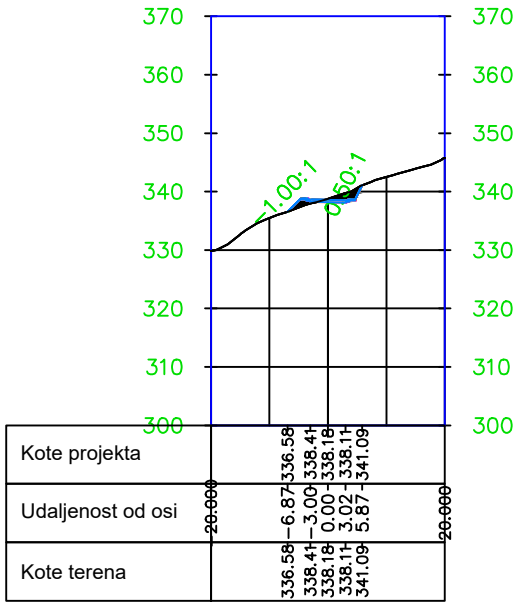

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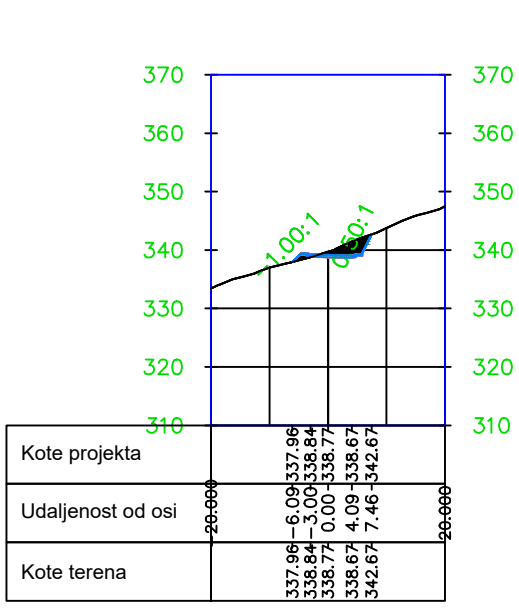

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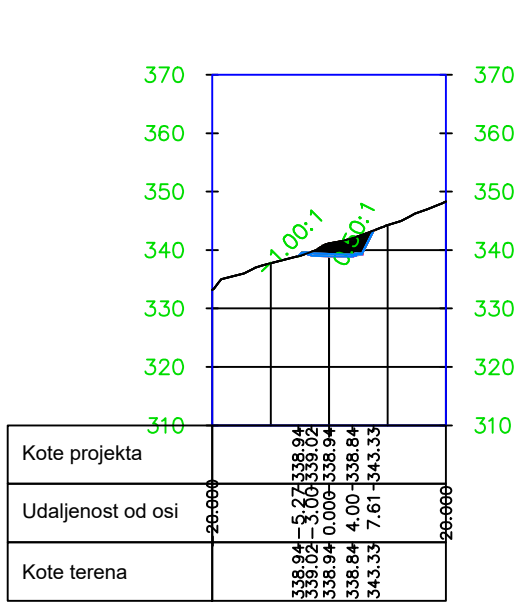
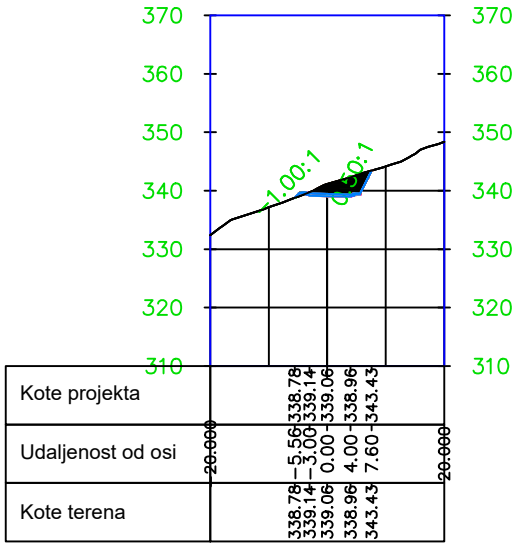
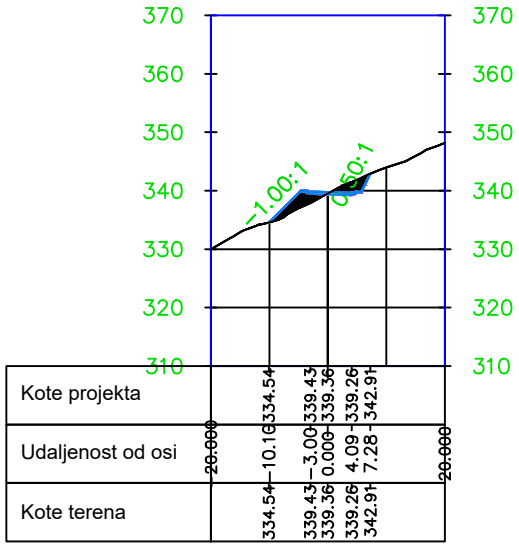


FAKULTET GRAĐEVINARSTVA, ARHITEKTURE I GOEDEZIJE		
PREDMET	CESTE–ZAVRSŠNI RAD	GODINA 2021./2022.
ZADATAK	IDEJNI PROJEKT	
SADRŽAJ	KARAKT. POP. PRESJECI	M 1:200
STUDENT	MLADEN TOPIĆ	

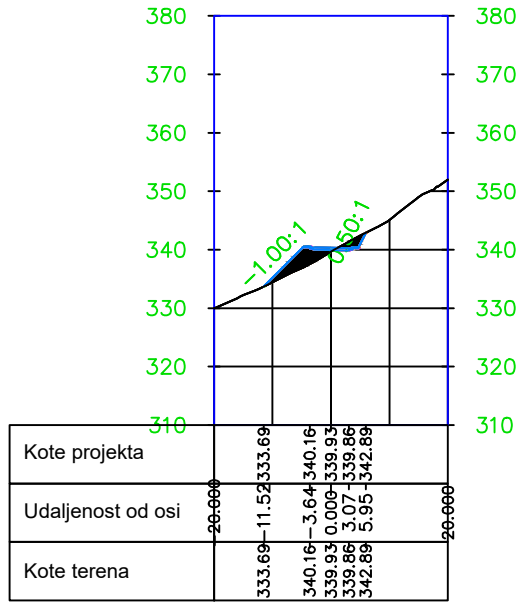
0+345.79



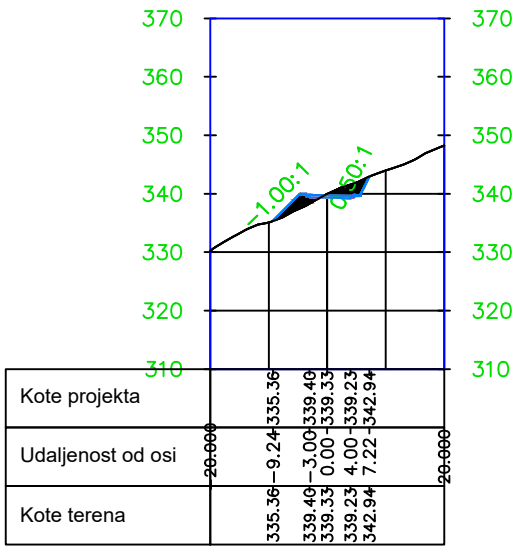
0+359.95



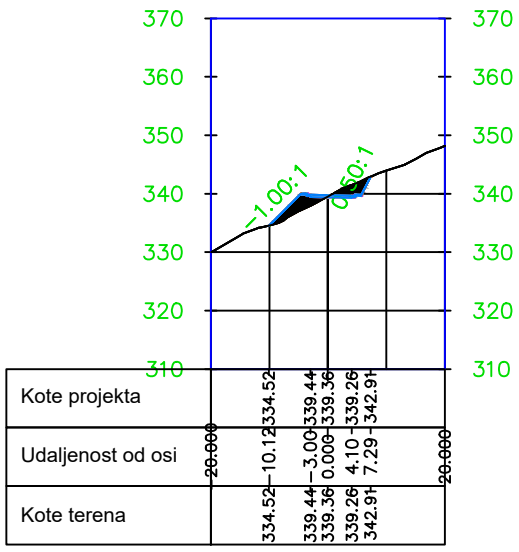
0+387.44



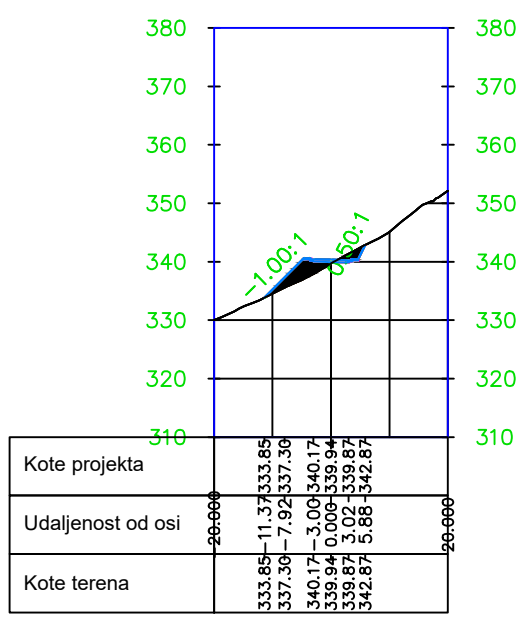
0+358.49



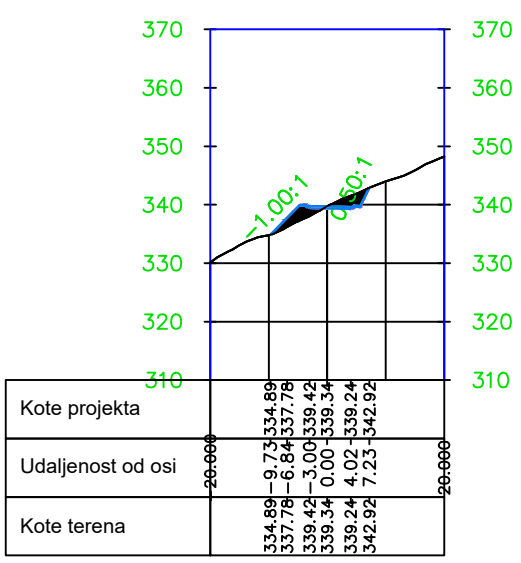
0+360.00



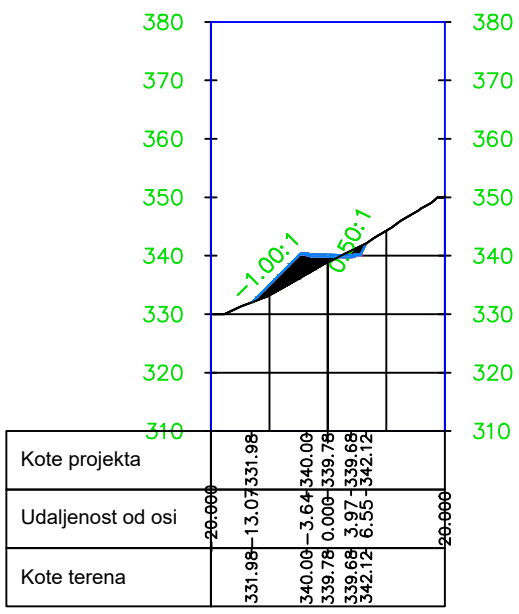
0+387.96



0+359.22



0+380.00



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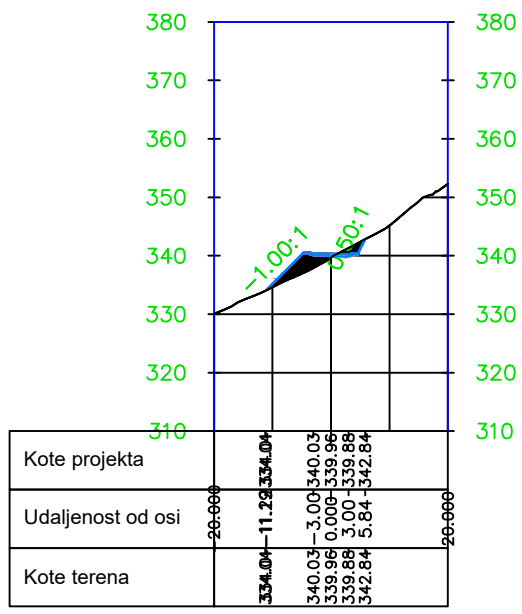
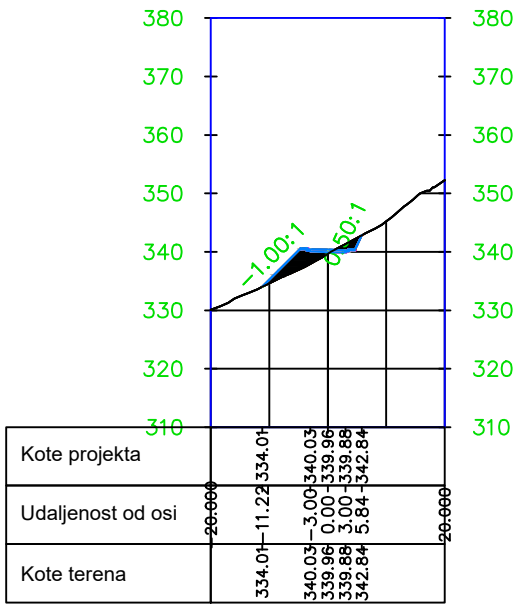


FAKULTET GRAĐEVINARSTVA, ARHITEKTURE I GOEDEZIJE		
PREDMET	CESTE–ZAVRSŠNI RAD	GODINA 2021./2022.
ZADATAK	IDEJNI PROJEKT	
SADRŽAJ	KARAKT. POP. PRESJECI	M 1:200
STUDENT	MLADEN TOPIĆ	

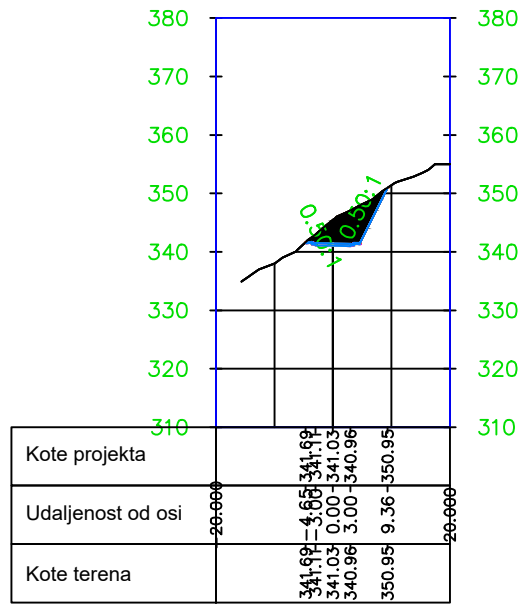
PRODUCED BY AN AUTODESK STUDENT VERSION

0+388.49



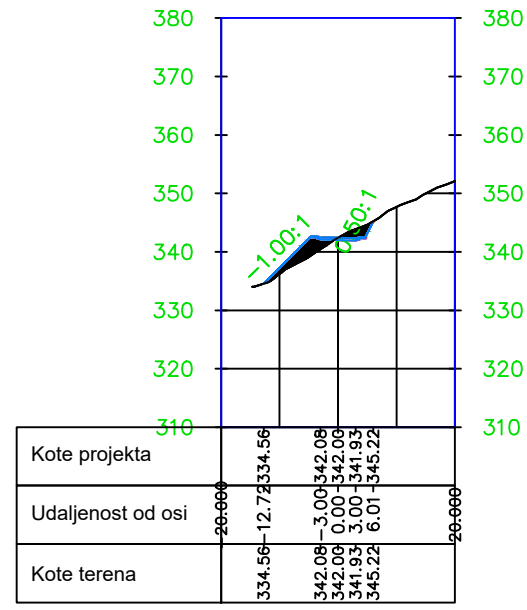
Kote projekta		334.01	340.03	339.96	339.88	342.84
Udaljenost od osi	20.000	11.22	3.00	0.00	3.00	5.84
Kote terena		334.01	340.03	339.96	339.88	342.84

0+440.00



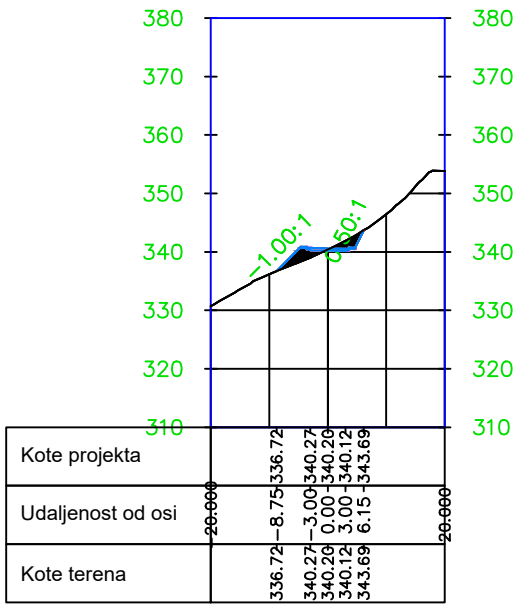
Kote projekta		341.69	341.11	341.03	340.96	350.95
Udaljenost od osi	20.000	4.65	3.00	0.00	3.00	9.36
Kote terena		341.69	341.11	341.03	340.96	350.95

0+486.59



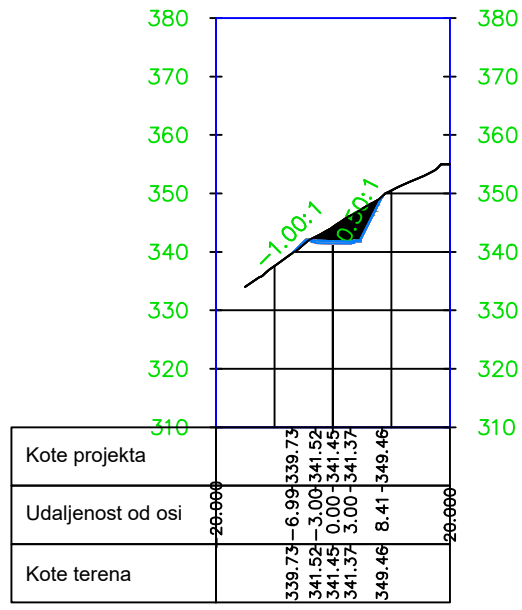
Kote projekta		334.56	342.08	342.09	341.93	345.22
Udaljenost od osi	20.000	12.72	3.00	0.00	3.00	6.01
Kote terena		334.56	342.08	342.09	341.93	345.22

0+400.00



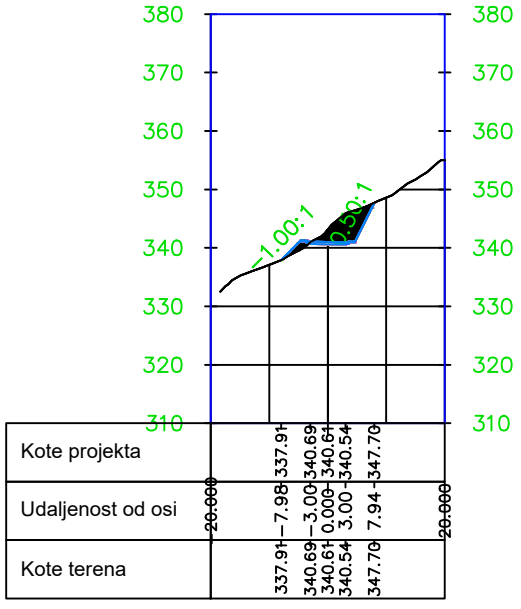
Kote projekta		336.72	340.27	340.20	340.12	343.69
Udaljenost od osi	20.000	8.75	3.00	0.00	3.00	6.15
Kote terena		336.72	340.27	340.20	340.12	343.69

0+460.00



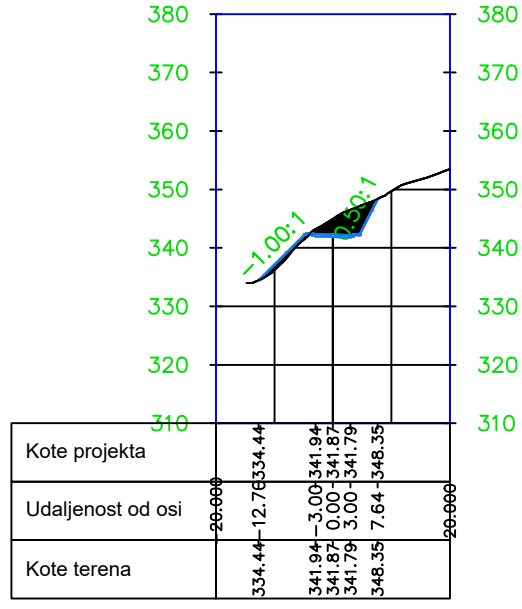
Kote projekta		339.73	341.52	341.45	341.37	349.46
Udaljenost od osi	20.000	6.99	3.00	0.00	3.00	8.41
Kote terena		339.73	341.52	341.45	341.37	349.46

0+420.00



Kote projekta		337.91	340.69	340.61	340.54	347.70
Udaljenost od osi	20.000	7.98	3.00	0.009	3.00	7.94
Kote terena		337.91	340.69	340.61	340.54	347.70

0+480.00



Kote projekta		334.44	341.94	341.87	341.79	348.35
Udaljenost od osi	20.000	12.76	3.00	0.00	3.00	7.64
Kote terena		334.44	341.94	341.87	341.79	348.35

FAKULTET GRAĐEVINARSTVA, ARHITEKTURE I GOEDEZIJE			
PREDMET	CESTE–ZAVRSŠNI RAD	GODINA 2021./2022.	
ZADATAK	IDEJNI PROJEKT		
SADRŽAJ	KARAKT. POP. PRESJECI	M 1:200	
STUDENT	MLADEN TOPIĆ		

4. TABLICA UKUPNOG VOLUMENA ZEMLJANIH RADOVA

Volume Report

Project: C:\Users\Korisnik\AppData\Local\Temp\stilovi2020 (1) Mladen Topić 15.9 (dodana slojnica)_1_25386_6d5cb417.sv$

Alignment: os 1 (5)
Sample Line Group: SL Collection - 5
Start Sta: 0+000.000
End Sta: 0+486.590

Station	Cut Area (Sq.m.)	Cut Volume (Cu.m.)	Reusable Volume (Cu.m.)	Fill Area (Sq.m.)	Fill Volume (Cu.m.)	Cum. Cut Vol. (Cu.m.)	Cum. Reusable Vol. (Cu.m.)	Cum. Fill Vol. (Cu.m.)	Cum. Net Vol. (Cu.m.)
0+000.000	10.77	0.00	0.00	14.74	0.00	0.00	0.00	0.00	0.00
0+020.000	11.07	218.40	218.40	7.02	217.65	218.40	218.40	217.65	0.74
0+040.000	9.18	202.46	202.46	9.93	169.48	420.85	420.85	387.13	33.72
0+054.880	6.79	118.79	118.79	12.89	169.77	539.64	539.64	556.90	-17.26
0+054.884	6.79	0.03	0.03	12.89	0.05	539.67	539.67	556.96	-17.28
0+055.248	6.83	2.48	2.48	13.05	4.72	542.15	542.15	561.68	-19.53
0+055.612	6.80	2.48	2.48	13.35	4.80	544.63	544.63	566.48	-21.85
0+060.000	5.70	27.43	27.43	19.58	72.25	572.05	572.05	638.73	-66.67
0+077.884	1.53	65.50	65.50	48.39	593.10	637.56	637.56	1231.83	-594.27
0+080.000	1.42	3.12	3.12	52.93	107.19	640.68	640.68	1339.02	-698.33
0+093.978	0.00	10.23	10.23	87.81	923.39	650.91	650.91	2262.40	-1611.49
0+094.431	0.00	0.00	0.00	88.77	39.94	650.91	650.91	2302.35	-1651.43
0+094.884	0.00	0.00	0.00	89.63	40.46	650.91	650.91	2342.81	-1691.90
0+100.000	0.00	0.00	0.00	98.14	446.99	650.91	650.91	2789.80	-2138.89
0+100.878	0.00	0.00	0.00	98.57	86.31	650.91	650.91	2876.11	-2225.20
0+106.871	0.00	0.00	0.00	97.19	551.92	650.91	650.91	3428.03	-2777.12
0+107.325	0.00	0.00	0.00	96.75	43.99	650.91	650.91	3472.02	-2821.11
0+107.777	0.00	0.00	0.00	96.50	43.72	650.91	650.91	3515.74	-2864.83
0+120.000	0.00	0.00	0.00	84.53	1054.45	650.91	650.91	4570.19	-3919.27
0+123.871	0.00	0.00	0.00	73.48	294.50	650.91	650.91	4864.69	-4213.77
0+140.000	0.15	1.25	1.25	17.83	720.46	652.16	652.16	5585.15	-4932.99
0+146.143	1.84	6.13	6.13	10.29	86.38	658.30	658.30	5671.53	-5013.24
0+146.507	1.91	0.68	0.68	9.97	3.68	658.98	658.98	5675.21	-5016.23
0+146.870	1.98	0.71	0.71	9.58	3.55	659.68	659.68	5678.76	-5019.08
0+146.871	1.98	0.00	0.00	9.58	0.00	659.69	659.69	5678.77	-5019.09
0+160.000	7.29	60.83	60.83	0.05	63.25	720.51	720.51	5742.02	-5021.51
0+169.826	15.17	110.33	110.33	0.00	0.25	830.84	830.84	5742.27	-4911.43
0+180.000	26.01	209.49	209.49	0.00	0.00	1040.33	1040.33	5742.27	-4701.94
0+190.191	11.33	190.27	190.27	0.00	0.00	1230.60	1230.60	5742.27	-4511.67
0+200.000	0.00	55.55	55.55	16.30	79.92	1286.15	1286.15	5822.19	-4536.04
0+215.980	0.00	0.00	0.00	85.84	816.09	1286.15	1286.15	6638.28	-5352.13
0+215.981	0.00	0.00	0.00	85.85	0.10	1286.15	1286.15	6638.38	-5352.23
0+216.504	0.00	0.00	0.00	89.85	45.95	1286.15	1286.15	6684.34	-5398.19
0+217.026	0.00	0.00	0.00	93.73	47.87	1286.15	1286.15	6732.20	-5446.06
0+220.000	0.00	0.00	0.00	109.35	302.00	1286.15	1286.15	7034.20	-5748.05
0+224.981	0.00	0.00	0.00	131.94	588.14	1286.15	1286.15	7622.34	-6336.20
0+240.000	0.00	0.00	0.00	98.54	1646.93	1286.15	1286.15	9269.27	-7983.13
0+244.517	0.00	0.00	0.00	80.77	380.18	1286.15	1286.15	9649.45	-8363.31
0+245.247	0.00	0.00	0.00	78.72	58.21	1286.15	1286.15	9707.66	-8421.52

0+245.247	0.00	0.00	0.00	78.72	58.21	1286.15	1286.15	9707.66	-8421.52
0+245.981	0.00	0.00	0.00	77.05	57.20	1286.15	1286.15	9764.86	-8478.72
0+257.889	0.00	0.00	0.00	46.85	690.41	1286.15	1286.15	10455.27	-9169.13
0+260.000	0.00	0.00	0.00	41.99	87.35	1286.15	1286.15	10542.63	-9256.48
0+269.797	0.00	0.00	0.00	25.90	308.35	1286.15	1286.15	10850.98	-9564.83
0+270.531	0.00	0.00	0.00	25.28	18.79	1286.15	1286.15	10869.77	-9583.63
0+271.261	0.00	0.00	0.00	24.87	18.30	1286.15	1286.15	10888.08	-9601.93
0+280.000	0.63	2.94	2.94	19.65	179.82	1289.09	1289.09	11067.90	-9778.81
0+290.797	3.87	25.19	25.19	12.97	167.25	1314.28	1314.28	11235.15	-9920.87
0+298.752	8.74	50.70	50.70	6.91	77.73	1364.98	1364.98	11312.88	-9947.90
0+299.274	8.85	4.59	4.59	6.36	3.46	1369.57	1369.57	11316.34	-9946.77
0+299.797	8.87	4.63	4.63	5.91	3.21	1374.20	1374.20	11319.55	-9945.35
0+299.800	8.87	0.03	0.03	5.91	0.02	1374.23	1374.23	11319.57	-9945.34
0+300.000	8.86	1.77	1.77	5.76	1.17	1376.00	1376.00	11320.74	-9944.74
0+303.099	8.09	26.26	26.26	3.40	14.18	1402.27	1402.27	11334.92	-9932.65
0+303.100	8.09	0.00	0.00	3.39	0.00	1402.27	1402.27	11334.92	-9932.65
0+303.622	7.67	4.11	4.11	3.08	1.69	1406.39	1406.39	11336.61	-9930.23
0+304.143	7.36	3.92	3.92	2.81	1.54	1410.31	1410.31	11338.15	-9927.84
0+320.000	3.42	83.69	83.69	13.69	134.04	1494.00	1494.00	11472.19	-9978.19
0+331.635	15.87	105.94	105.94	1.73	95.28	1599.94	1599.94	11567.47	-9967.53
0+332.365	16.20	11.70	11.70	1.42	1.15	1611.65	1611.65	11568.62	-9956.98
0+333.099	16.86	12.14	12.14	1.16	0.95	1623.79	1623.79	11569.57	-9945.78
0+340.000	23.59	131.53	131.53	0.24	5.28	1755.32	1755.32	11574.85	-9819.53
0+345.793	23.89	130.26	130.26	0.49	2.30	1885.58	1885.58	11577.15	-9691.57
0+358.487	12.29	215.78	215.78	9.92	72.86	2101.35	2101.35	11650.01	-9548.66
0+358.487	12.29	215.78	215.78	9.92	72.86	2101.35	2101.35	11650.01	-9548.66
0+359.221	11.29	8.66	8.66	11.90	8.01	2110.01	2110.01	11658.02	-9548.01
0+359.951	10.84	8.08	8.08	14.07	9.48	2118.09	2118.09	11667.50	-9549.41
0+360.000	10.82	0.53	0.53	14.21	0.69	2118.62	2118.62	11668.19	-9549.57
0+380.000	4.05	141.06	141.06	30.54	478.13	2259.68	2259.68	12146.32	-9886.63
0+387.442	5.87	36.42	36.42	20.21	192.18	2296.10	2296.10	12338.50	-10042.39
0+387.964	5.69	3.01	3.01	19.85	10.45	2299.12	2299.12	12348.94	-10049.83
0+388.487	5.48	2.92	2.92	19.59	10.31	2302.04	2302.04	12359.26	-10057.22
0+388.490	5.48	0.02	0.02	19.58	0.06	2302.05	2302.05	12359.31	-10057.26
0+400.000	7.59	75.23	75.23	9.80	169.12	2377.29	2377.29	12528.43	-10151.15
0+420.000	33.09	406.83	406.83	3.62	134.21	2784.12	2784.12	12662.64	-9878.52
0+440.000	52.12	852.10	852.10	0.00	36.18	3636.22	3636.22	12698.82	-9062.61
0+460.000	35.65	877.66	877.66	0.76	7.56	4513.88	4513.88	12706.38	-8192.50
0+480.000	34.01	696.58	696.58	6.19	69.47	5210.46	5210.46	12775.85	-7565.39
0+486.590	8.39	139.69	139.69	18.98	82.92	5350.15	5350.15	12858.77	-7508.62

5. OBRADA NA RAČUNALU

Za izradu idejnog projekta lokalne ceste korišten je AutoCAD Civil 3D koji znatno olakšava izradu programskog zadatka. U odnosu na ručno rješavanje, postupak na računalu je znatno brži i jednostavniji.

Prvi korak pri izradi idejnog rješenja je skeniranje geodetske podloge te slijedi iscrtavanje slojnica. Slojnice se iscrtavaju pomoću 3D poligonalnih linija te se postupkom triangulacije na tim linijama dobije trodimenzionalni model terena. Zatim definiramo koordinate točaka tangenti (dvije točke ta svaku tangentu) te ih definiramo na terenu. Na sjecištima tangenti definiramo kružne lukove i prijelazne krivine te na taj način definiramo horizontalni tok ceste.

Slijedi izrada uzdužnog presjeka ceste kojeg definira niveleta. Niveleta se postavlja tako da se zadovolje geometrijski i sigurnosni elementi te odvodnja. Između tangenti se ubacuje kružna krivina određenog radijusa.

Sljedeći korak je definiranje poprečnog profila prometnice. Poprečnim presjekom su definirani: poprečni nagib i širina kolnika te pokosi usjeka i nasipa.

Na temelju definiranih horizontalnih i vertikalnih elemenata te osi ceste, izrađujemo koridor. On omogućuje uvid u poprečne presjeke u svim karakterističnim i zadanim točkama osi ceste. Time smo definirali cijelu dionicu ceste.

Izlazni podaci su računalni ispisi koordinatnih točaka osi, točaka svakog poprečnog presjeka te količina zemljanih radova po presjeku.

6. IZLAZNI PODACI IZ PROGRAMA

6.1. Koordinatni račun glavnih točaka

Your Company Name

123 Main Street

Suite #321

City, State 01234

Alignment Station and Curve Report

Project Name: C:\Users\Korisnik\Desktop\Ceste Završni\stilovi2020 (1) Mladen Topić 15.9 (dodana slojnica).dwg

Report Date: 15.9.2022. 16:54:26

Client: Client Company

Project Description:

Prepared by: Preparer

Alignment: os_1_(5)

Description:

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+00.000	148.604	112.860
End:	0+54.884	119.283	159.255

Tangent Data

Parameter	Value	Parameter	Value
Length:	54.884	Course:	S 57° 42' 25.2739" E

Spiral Point Data

Description	Station	Northing	Easting
TS:	0+54.884	119.283	159.255
SPI:		105.006	181.845
SC:	0+94.884	100.246	194.354

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:	40.000	L Tan:	26.723
Radius:	100.000	S Tan:	13.384
Theta:	11° 27' 32.9612"	P:	0.666
X:	39.840	K:	19.973
Y:	2.659	A:	63.246
Chord:	39.929	Course:	S 61° 31' 31.6000" E

Curve Point Data

Description	Station	Northing	Easting
SC:	0+94.884	100.246	194.354

RP:		193.707	229.920
CS:	1+06.871	96.663	205.785

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	06° 52' 04.5437"	Type:	LEFT
Radius:	100.000		
Length:	11.987	Tangent:	6.001
Mid-Ord:	0.180	External:	0.180
Chord:	11.980	Course:	S 72° 36' 00.5070" E

Spiral Point Data

Description	Station	Northing	Easting
CS:	1+06.871	96.663	205.785
SPI:		93.433	218.774
ST:	1+46.871	92.264	245.471

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:	40.000	L Tan:	26.723
Radius:	100.000	S Tan:	13.384
Theta:	11° 27' 32.9612"	P:	0.666
X:	39.840	K:	19.973
Y:	2.659	A:	63.246
Chord:	39.929	Course:	S 83° 40' 29.4139" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	1+46.871	92.264	245.471
End:	2+15.981	89.242	314.515

Tangent Data

Parameter	Value	Parameter	Value
Length:	69.110	Course:	S 87° 29' 35.7401" E

Spiral Point Data

Description	Station	Northing	Easting
TS:	2+15.981	89.242	314.515
SPI:		88.363	334.591
SC:	2+45.981	90.919	344.348

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:	30.000	L Tan:	20.095
Radius:	50.000	S Tan:	10.087
Theta:	17° 11' 19.4419"	P:	0.748
X:	29.731	K:	14.955
Y:	2.981	A:	38.730
Chord:	29.880	Course:	N 86° 46' 53.5291" E

Curve Point Data

Description	Station	Northing	Easting

SC:	2+45.981	90.919	344.348
RP:		139.287	331.676
CS:	2+69.797	102.113	365.114

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	27° 17' 26.3361"	Type:	LEFT
Radius:	50.000		
Length:	23.816	Tangent:	12.138
Mid-Ord:	1.411	External:	1.452
Chord:	23.591	Course:	N 61° 40' 21.6500" E

Spiral Point Data

Description	Station	Northing	Easting
CS:	2+69.797	102.113	365.114
SPI:		108.859	372.613
ST:	2+99.797	126.113	382.915

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:	30.000	L Tan:	20.095
Radius:	50.000	S Tan:	10.087
Theta:	17° 11' 19.4419"	P:	0.748
X:	29.731	K:	14.955
Y:	2.981	A:	38.730
Chord:	29.880	Course:	N 36° 33' 49.7709" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	2+99.797	126.113	382.915
End:	3+03.099	128.948	384.607

Tangent Data

Parameter	Value	Parameter	Value
Length:	3.302	Course:	N 30° 50' 19.0400" E

Spiral Point Data

Description	Station	Northing	Easting
TS:	3+03.099	128.948	384.607
SPI:		146.202	394.909
SC:	3+33.099	152.948	402.408

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:	30.000	L Tan:	20.095
Radius:	50.000	S Tan:	10.087
Theta:	17° 11' 19.4419"	P:	0.748
X:	29.731	K:	14.955
Y:	2.981	A:	38.730
Chord:	29.880	Course:	N 36° 33' 49.7709" E

Curve Point Data

Description	Station	Northing	Easting
SC:	3+33.099	152.948	402.408
RP:		115.775	435.846
CS:	3+58.487	164.517	424.701

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	29° 05' 33.6050"	Type:	RIGHT
Radius:	50.000		
Length:	25.388	Tangent:	12.974
Mid-Ord:	1.603	External:	1.656
Chord:	25.116	Course:	N 62° 34' 25.2844" E

Spiral Point Data

Description	Station	Northing	Easting
CS:	3+58.487	164.517	424.701
SPI:		166.765	434.534
ST:	3+88.487	165.255	454.572

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:	30.000	L Tan:	20.095
Radius:	50.000	S Tan:	10.087
Theta:	17° 11' 19.4419"	P:	0.748
X:	29.731	K:	14.955
Y:	2.981	A:	38.730
Chord:	29.880	Course:	N 88° 35' 00.7980" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	3+88.487	165.255	454.572
End:	4+86.590	157.885	552.397

Tangent Data

Parameter	Value	Parameter	Value
Length:	98.103	Course:	S 85° 41' 28.4712" E

Alignment: os 1 (5)-Left-3.000

Description:

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+00.000	151.140	114.463
End:	0+54.884	121.819	160.858

Tangent Data

Parameter	Value	Parameter	Value
Length:	54.884	Course:	S 57° 42' 25.2739" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+54.884	121.819	160.858
RP:		128.581	165.132
PT:	0+55.613	121.458	161.491

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	05° 13' 00.4536"	Type:	LEFT
Radius:	8.000		
Length:	0.728	Tangent:	0.364
Mid-Ord:	0.008	External:	0.008
Chord:	0.728	Course:	S 60° 18' 55.5007" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+55.613	121.458	161.491
End:	0+93.225	104.338	194.980

Tangent Data

Parameter	Value	Parameter	Value
Length:	37.612	Course:	S 62° 55' 25.7275" E

Curve Point Data

Description	Station	Northing	Easting
PC:	0+93.225	104.338	194.980
RP:		111.461	198.622
PCC:	0+94.096	103.984	195.777

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	06° 14' 32.5076"	Type:	LEFT
Radius:	8.000		
Length:	0.872	Tangent:	0.436
Mid-Ord:	0.012	External:	0.012
Chord:	0.871	Course:	S 66° 02' 41.9813" E

Curve Point Data

Description	Station	Northing	Easting
PCC:	0+94.096	103.984	195.777
RP:		193.707	229.920
PCC:	1+05.604	100.545	206.751

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	06° 52' 04.5437"	Type:	LEFT
Radius:	96.000		
Length:	11.507	Tangent:	5.761
Mid-Ord:	0.172	External:	0.173
Chord:	11.500	Course:	S 72° 36' 00.5070" E

Curve Point Data

Description	Station	Northing	Easting
PCC:	1+05.604	100.545	206.751
RP:		108.309	208.682
PT:	1+06.475	100.381	207.606

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	06° 14' 32.5076"	Type:	LEFT
Radius:	8.000		
Length:	0.872	Tangent:	0.436
Mid-Ord:	0.012	External:	0.012
Chord:	0.871	Course:	S 79° 09' 19.0326" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	1+06.475	100.381	207.606
End:	1+44.087	95.326	244.877

Tangent Data

Parameter	Value	Parameter	Value
Length:	37.612	Course:	S 82° 16' 35.2864" E

Curve Point Data

Description	Station	Northing	Easting
PC:	1+44.087	95.326	244.877
RP:		103.254	245.952
PT:	1+44.816	95.262	245.602

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	05° 13' 00.4536"	Type:	LEFT
Radius:	8.000		
Length:	0.728	Tangent:	0.364
Mid-Ord:	0.008	External:	0.008
Chord:	0.728	Course:	S 84° 53' 05.5133" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	1+44.816	95.262	245.602
End:	2+13.926	92.239	314.647

Tangent Data

Parameter	Value	Parameter	Value
Length:	69.110	Course:	S 87° 29' 35.7401" E

Curve Point Data

Description	Station	Northing	Easting
PC:	2+13.926	92.239	314.647
RP:		100.231	314.996
PT:	2+14.972	92.261	315.692

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	07° 29' 40.6609"	Type:	LEFT
Radius:	8.000		
Length:	1.046	Tangent:	0.524
Mid-Ord:	0.017	External:	0.017
Chord:	1.046	Course:	N 88° 45' 33.9295" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	2+14.972	92.261	315.692
End:	2+41.383	94.558	342.003

Tangent Data

Parameter	Value	Parameter	Value
Length:	26.411	Course:	N 85° 00' 43.5990" E

Curve Point Data

Description	Station	Northing	Easting
PC:	2+41.383	94.558	342.003
RP:		102.527	341.307
PCC:	2+42.736	94.789	343.335

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	09° 41' 38.7810"	Type:	LEFT
Radius:	8.000		
Length:	1.354	Tangent:	0.678
Mid-Ord:	0.029	External:	0.029
Chord:	1.352	Course:	N 80° 09' 54.2085" E

Curve Point Data

Description	Station	Northing	Easting
PCC:	2+42.736	94.789	343.335
RP:		139.287	331.676
PCC:	2+64.647	105.087	362.439

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	27° 17' 26.3361"	Type:	LEFT
Radius:	46.000		
Length:	21.910	Tangent:	11.167
Mid-Ord:	1.298	External:	1.336
Chord:	21.704	Course:	N 61° 40' 21.6500" E

Curve Point Data

Description	Station	Northing	Easting
PCC:	2+64.647	105.087	362.439
RP:		111.035	357.089
PT:	2+66.000	106.073	363.364

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	09° 41' 38.7810"	Type:	LEFT
Radius:	8.000		
Length:	1.354	Tangent:	0.678
Mid-Ord:	0.029	External:	0.029
Chord:	1.352	Course:	N 43° 10' 49.0914" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	2+66.000	106.073	363.364
End:	2+92.411	126.790	379.745

Tangent Data

Parameter	Value	Parameter	Value
Length:	26.411	Course:	N 38° 19' 59.7009" E

Curve Point Data

Description	Station	Northing	Easting
PC:	2+92.411	126.790	379.745
RP:		131.752	373.470
PT:	2+93.457	127.651	380.339

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	07° 29' 40.6609"	Type:	LEFT
Radius:	8.000		
Length:	1.046	Tangent:	0.524
Mid-Ord:	0.017	External:	0.017
Chord:	1.046	Course:	N 34° 35' 09.3705" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	2+93.457	127.651	380.339
End:	2+96.759	130.486	382.032

Tangent Data

Parameter	Value	Parameter	Value
Length:	3.302	Course:	N 30° 50' 19.0400" E

Spiral Point Data

Description	Station	Northing	Easting
TS:	2+96.759	130.486	382.032
SPI:		148.129	392.565
SC:	3+27.659	155.178	400.401

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:	30.900	L Tan:	20.692
Radius:	53.000	S Tan:	10.384
Theta:	16° 42' 08.1369"	P:	0.748
X:	30.638	K:	15.406
Y:	2.984	A:	40.469

Chord:	30.776	Course:	N 36° 38' 50.5732" E

Curve Point Data

Description	Station	Northing	Easting
SC:	3+27.659	155.178	400.401
RP:		115.775	435.846
CS:	3+54.571	167.441	424.032

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	29° 05' 33.6050"	Type:	RIGHT
Radius:	53.000		
Length:	26.911	Tangent:	13.752
Mid-Ord:	1.699	External:	1.755
Chord:	26.623	Course:	N 62° 34' 25.2844" E

Spiral Point Data

Description	Station	Northing	Easting
CS:	3+54.571	167.441	424.032
SPI:		169.791	434.307
ST:	3+85.471	168.247	454.797

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:	30.900	L Tan:	20.692
Radius:	53.000	S Tan:	10.384
Theta:	16° 42' 08.1369"	P:	0.748
X:	30.638	K:	15.406
Y:	2.984	A:	40.469
Chord:	30.776	Course:	N 88° 29' 59.9957" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	3+85.471	168.247	454.797
End:	4+83.573	160.876	552.623

Tangent Data

Parameter	Value	Parameter	Value
Length:	98.103	Course:	S 85° 41' 28.4712" E

Alignment: os 1 (5)-Right-3.000

Description:

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+00.000	146.068	111.257
End:	0+54.884	116.747	157.653

Tangent Data

Parameter	Value	Parameter	Value
Length:	54.884	Course:	S 57° 42' 25.2739" E

Spiral Point Data

Description	Station	Northing	Easting
TS:	0+54.884	116.747	157.653
SPI:		102.309	180.496
SC:	0+95.484	97.442	193.287

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:	40.600	L Tan:	27.122
Radius:	103.000	S Tan:	13.584
Theta:	11° 17' 32.1900"	P:	0.666
X:	40.443	K:	20.274
Y:	2.660	A:	64.667
Chord:	40.528	Course:	S 61° 33' 13.2703" E

Curve Point Data

Description	Station	Northing	Easting
SC:	0+95.484	97.442	193.287
RP:		193.707	229.920
CS:	1+07.831	93.752	205.061

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	06° 52' 04.5437"	Type:	LEFT
Radius:	103.000		
Length:	12.346	Tangent:	6.181
Mid-Ord:	0.185	External:	0.185
Chord:	12.339	Course:	S 72° 36' 00.5070" E

Spiral Point Data

Description	Station	Northing	Easting
CS:	1+07.831	93.752	205.061
SPI:		90.449	218.342
ST:	1+48.431	89.267	245.340

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:	40.600	L Tan:	27.122
Radius:	103.000	S Tan:	13.584
Theta:	11° 17' 32.1900"	P:	0.666
X:	40.443	K:	20.274
Y:	2.660	A:	64.667
Chord:	40.528	Course:	S 83° 38' 47.7437" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	1+48.431	89.267	245.340
End:	2+17.541	86.245	314.384

Tangent Data

Parameter	Value	Parameter	Value
Length:	69.110	Course:	S 87° 29' 35.7401" E

Spiral Point Data

Description	Station	Northing	Easting
TS:	2+17.541	86.245	314.384
SPI:		85.346	334.913
SC:	2+48.441	88.017	345.109

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:	30.900	L Tan:	20.692
Radius:	53.000	S Tan:	10.384
Theta:	16° 42' 08.1369"	P:	0.748
X:	30.638	K:	15.406
Y:	2.984	A:	40.469
Chord:	30.776	Course:	N 86° 41' 52.7268" E

Curve Point Data

Description	Station	Northing	Easting
SC:	2+48.441	88.017	345.109
RP:		139.287	331.676
CS:	2+73.685	99.883	367.121

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	27° 17' 26.3361"	Type:	LEFT
Radius:	53.000		
Length:	25.245	Tangent:	12.866
Mid-Ord:	1.496	External:	1.539
Chord:	25.007	Course:	N 61° 40' 21.6500" E

Spiral Point Data

Description	Station	Northing	Easting
CS:	2+73.685	99.883	367.121
SPI:		106.932	374.957
ST:	3+04.585	124.575	385.490

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:	30.900	L Tan:	20.692
Radius:	53.000	S Tan:	10.384
Theta:	16° 42' 08.1369"	P:	0.748
X:	30.638	K:	15.406
Y:	2.984	A:	40.469
Chord:	30.776	Course:	N 36° 38' 50.5732" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	3+04.585	124.575	385.490

End:	3+07.887	127.410	387.183

Tangent Data

Parameter	Value	Parameter	Value
Length:	3.302	Course:	N 30° 50' 19.0400" E

Curve Point Data

Description	Station	Northing	Easting
PC:	3+07.887	127.410	387.183
RP:		123.309	394.052
PT:	3+08.934	128.271	387.777

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	07° 29' 40.6609"	Type:	RIGHT
Radius:	8.000		
Length:	1.046	Tangent:	0.524
Mid-Ord:	0.017	External:	0.017
Chord:	1.046	Course:	N 34° 35' 09.3705" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	3+08.934	128.271	387.777
End:	3+35.344	148.988	404.157

Tangent Data

Parameter	Value	Parameter	Value
Length:	26.411	Course:	N 38° 19' 59.7009" E

Curve Point Data

Description	Station	Northing	Easting
PC:	3+35.344	148.988	404.157
RP:		144.026	410.433
PCC:	3+36.698	149.974	405.083

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	09° 41' 38.7810"	Type:	RIGHT
Radius:	8.000		
Length:	1.354	Tangent:	0.678
Mid-Ord:	0.029	External:	0.029
Chord:	1.352	Course:	N 43° 10' 49.0914" E

Curve Point Data

Description	Station	Northing	Easting
PCC:	3+36.698	149.974	405.083
RP:		115.775	435.846
PCC:	3+60.055	160.617	425.592

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	29° 05' 33.6050"	Type:	RIGHT

Radius:	46.000		
Length:	23.357	Tangent:	11.936
Mid-Ord:	1.475	External:	1.523
Chord:	23.107	Course:	N 62° 34' 25.2844" E

Curve Point Data

Description	Station	Northing	Easting
PCC:	3+60.055	160.617	425.592
RP:		152.818	427.376
PT:	3+61.409	160.806	426.931

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	09° 41' 38.7810"	Type:	RIGHT
Radius:	8.000		
Length:	1.354	Tangent:	0.678
Mid-Ord:	0.029	External:	0.029
Chord:	1.352	Course:	N 81° 58' 01.4774" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	3+61.409	160.806	426.931
End:	3+87.819	162.274	453.301

Tangent Data

Parameter	Value	Parameter	Value
Length:	26.411	Course:	N 86° 48' 50.8679" E

Curve Point Data

Description	Station	Northing	Easting
PC:	3+87.819	162.274	453.301
RP:		154.286	453.745
PT:	3+88.866	162.264	454.346

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	07° 29' 40.6609"	Type:	RIGHT
Radius:	8.000		
Length:	1.046	Tangent:	0.524
Mid-Ord:	0.017	External:	0.017
Chord:	1.046	Course:	S 89° 26' 18.8016" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	3+88.866	162.264	454.346
End:	4+86.968	154.893	552.172

Tangent Data

Parameter	Value	Parameter	Value
Length:	98.103	Course:	S 85° 41' 28.4712" E

6.2. Koordinatni račun detaljnih točaka osi

Alignment Incremental Station Report

Client:
Client
Client Company
Address 1

Prepared by:
Preparer
Your Company Name
123 Main Street

Date: 15.9.2022. 17:07:23

Alignment Name: os 1 (5)
Description:
Station Range: Start: 0+000.00, End: 48+659.00
Station Increment: 20.00

Station	Northing	Easting	Tangential Direction
0+000.00	148.6044m	112.8602m	S57° 42' 25"E
0+020.00	137.9194m	129.7667m	S57° 42' 25"E
0+040.00	127.2345m	146.6733m	S57° 42' 25"E
0+060.00	116.5542m	163.5828m	S57° 53' 40"E
0+080.00	106.4306m	180.8257m	S62° 13' 29"E
0+100.00	98.5493m	199.1797m	S72° 05' 50"E
0+120.00	94.2458m	218.6832m	S82° 19' 19"E
0+140.00	92.5784m	238.6075m	S87° 09' 19"E
0+160.00	91.6901m	258.5877m	S87° 29' 36"E
0+180.00	90.8154m	278.5686m	S87° 29' 36"E
0+200.00	89.9407m	298.5495m	S87° 29' 36"E
0+220.00	89.0731m	318.5306m	S87° 48' 06"E
0+240.00	89.7292m	338.4898m	N81° 29' 19"E
0+260.00	96.3147m	357.2376m	N59° 15' 13"E
0+280.00	109.5856m	372.0444m	N38° 19' 25"E
0+300.00	126.2875m	383.0188m	N30° 50' 19"E
0+320.00	143.1718m	393.7237m	N36° 17' 39"E
0+340.00	157.1950m	407.8400m	N55° 56' 08"E
0+360.00	164.8318m	426.1805m	N78° 48' 36"E
0+380.00	165.8250m	446.1042m	S87° 04' 01"E
0+400.00	164.3902m	466.0523m	S85° 41' 28"E
0+420.00	162.8876m	485.9958m	S85° 41' 28"E
0+440.00	161.3849m	505.9393m	S85° 41' 28"E
0+460.00	159.8823m	525.8827m	S85° 41' 28"E
0+480.00	158.3797m	545.8262m	S85° 41' 28"E

6.3. Račun kota kolnika

Corridor Section Points Report

Client:
Client
Client Company
Address 1

Prepared by:
Preparer
Your Company Name
123 Main Street

Date: 15.9.2022. 17:22:31

Corridor Name: corridorNOVI
Description:
Base Alignment Name: os 1 (5)
Station Range: Start: 0+000.00, End: 0+486.59

CHAINAGE 0+000.00

POINT	X	Y	Z	OFFSET	STRING CUT
1	118.5208	157.5610	319.1674	-10.595m	Daylight
2	115.3400	152.5282	325.1212	-4.642m	Hinge
3	115.3395	152.5273	324.9212	-4.641m	EPS_Sub
4	114.8057	151.6828	325.1612	-3.642m	Back_Curb
5	114.7256	151.5560	325.1612	-3.492m	Top_Curb
6	114.7033	151.5208	324.9362	-3.450m	Flowline_Gutter
7	114.4629	151.1404	324.9632	-3.000m	ETW
8	114.4629	151.1404	324.5632	-3.000m	ETW_SubBase
9	111.2574	146.0684	324.8132	3.000m	Flange
10	111.2574	146.0684	324.4132	3.000m	ETW_SubBase
11	111.0170	145.6880	324.7862	3.450m	Flowline_Gutter
12	110.9947	145.6528	325.0112	3.492m	Top_Curb
13	110.9146	145.5260	325.0112	3.642m	Back_Curb
14	110.3809	144.6815	324.7712	4.641m	EPS_Sub
15	110.3804	144.6807	324.9712	4.642m	Hinge_Cut
16	109.3088	142.9852	328.9826	6.647m	Daylight

CHAINAGE 0+020.00

POINT	X	Y	Z	OFFSET	STRING CUT
1	134.6670	145.6730	321.8252	-9.172m	Daylight
2	132.2465	141.8432	326.3558	-4.642m	Hinge
3	132.2460	141.8423	326.1558	-4.641m	EPS_Sub
4	131.7123	140.9979	326.3958	-3.642m	Back_Curb
5	131.6322	140.8711	326.3958	-3.492m	Top_Curb
6	131.6099	140.8358	326.1708	-3.450m	Flowline_Gutter
7	131.3695	140.4554	326.1978	-3.000m	ETW
8	131.3695	140.4554	325.7978	-3.000m	ETW_SubBase
9	128.1640	135.3834	326.0478	3.000m	Flange
10	128.1640	135.3834	325.6478	3.000m	ETW_SubBase
11	127.9236	135.0031	326.0208	3.450m	Flowline_Gutter
12	127.9013	134.9678	326.2458	3.492m	Top_Curb
13	127.8211	134.8410	326.2458	3.642m	Back_Curb
14	127.2874	133.9965	326.0058	4.641m	EPS_Sub

15	127.2869	133.9957	326.2058	4.642m	Hinge_Cut
16	126.3651	132.5372	329.6565	6.367m	Daylight

CHAINAGE 0+040.00

POINT	X	Y	Z	OFFSET	STRING CUT
1	151.9102	135.5208	322.4297	-9.802m	Daylight
2	149.1531	131.1582	327.5905	-4.642m	Hinge
3	149.1526	131.1574	327.3905	-4.641m	EPS_Sub
4	148.6188	130.3129	327.6305	-3.642m	Back_Curb
5	148.5387	130.1861	327.6305	-3.492m	Top_Curb
6	148.5164	130.1508	327.4055	-3.450m	Flowline_Gutter
7	148.2760	129.7704	327.4325	-3.000m	ETW
8	148.2760	129.7704	327.0325	-3.000m	ETW_SubBase
9	145.0705	124.6985	327.2825	3.000m	Flange
10	145.0705	124.6985	326.8825	3.000m	ETW_SubBase
11	144.8301	124.3181	327.2555	3.450m	Flowline_Gutter
12	144.8078	124.2828	327.4805	3.492m	Top_Curb
13	144.7277	124.1560	327.4805	3.642m	Back_Curb
14	144.1940	123.3115	327.2405	4.641m	EPS_Sub
15	144.1934	123.3107	327.4405	4.642m	Hinge_Cut
16	143.3367	121.9551	330.6478	6.245m	Daylight

CHAINAGE 0+060.00

POINT	X	Y	Z	OFFSET	STRING CUT
1	170.3942	127.4102	321.0887	-12.816m	Daylight
2	166.2768	120.8479	328.8358	-5.069m	Hinge
3	166.2763	120.8471	328.6358	-5.068m	EPS_Sub
4	165.7453	120.0009	328.8758	-4.069m	Back_Curb
5	165.6656	119.8738	328.8758	-3.919m	Top_Curb
6	165.6435	119.8385	328.6508	-3.877m	Flowline_Gutter
7	165.4043	119.4573	328.6778	-3.427m	ETW
8	165.4043	119.4573	328.2778	-3.427m	ETW_SubBase
9	161.9889	114.0138	328.5171	2.999m	Flange
10	161.9889	114.0138	328.1171	2.999m	ETW_SubBase
11	161.7497	113.6326	328.4901	3.449m	Flowline_Gutter
12	161.7275	113.5973	328.7151	3.491m	Top_Curb
13	161.6478	113.4702	328.7151	3.641m	Back_Curb
14	161.1169	112.6240	328.4751	4.640m	EPS_Sub
15	161.1163	112.6232	328.6751	4.641m	Hinge_Cut
16	160.3830	111.4544	331.4348	6.021m	Daylight

CHAINAGE 0+080.00

POINT	X	Y	Z	OFFSET	STRING CUT
1	189.8314	123.5295	316.9954	-19.325m	Daylight
2	183.7250	111.9354	330.0993	-6.222m	Hinge
3	183.7245	111.9345	329.8993	-6.221m	EPS_Sub
4	183.2590	111.0506	330.1393	-5.222m	Back_Curb
5	183.1891	110.9179	330.1393	-5.072m	Top_Curb

6	183.1696	110.8810	329.9143	-5.030m	Flowline_Gutter
7	182.9599	110.4828	329.9413	-4.580m	ETW
8	182.9599	110.4828	329.5413	-4.580m	ETW_SubBase
9	179.4277	103.7764	329.7518	3.000m	Flange
10	179.4277	103.7764	329.3518	3.000m	ETW_SubBase
11	179.2180	103.3783	329.7248	3.450m	Flowline_Gutter
12	179.1986	103.3414	329.9498	3.492m	Top_Curb
13	179.1287	103.2087	329.9498	3.642m	Back_Curb
14	178.6632	102.3248	329.7098	4.641m	EPS_Sub
15	178.6627	102.3239	329.9098	4.642m	Hinge_Cut
16	178.4208	101.8647	330.9478	5.161m	Daylight

CHAINAGE 0+100.00

POINT	X	Y	Z	OFFSET	STRING CUT
1	205.4218	117.8720	316.6553	-20.306m	Daylight
2	200.9140	103.9179	331.3194	-5.642m	Hinge
3	200.9137	103.9169	331.1194	-5.641m	EPS_Sub
4	200.6066	102.9663	331.3594	-4.642m	Back_Curb
5	200.5605	102.8235	331.3594	-4.492m	Top_Curb
6	200.5477	102.7839	331.1344	-4.450m	Flowline_Gutter
7	200.4093	102.3556	330.7614	-4.000m	ETW_SubBase
8	200.4093	102.3556	331.1614	-4.000m	Flange
9	198.2575	95.6946	330.9864	3.000m	Flange
10	198.2575	95.6946	330.5864	3.000m	ETW_SubBase
11	198.1192	95.2664	330.9594	3.450m	Flowline_Gutter
12	198.1064	95.2267	331.1844	3.492m	Top_Curb
13	198.0603	95.0840	331.1844	3.642m	Back_Curb
14	197.7532	94.1333	330.9444	4.641m	EPS_Sub
15	197.7529	94.1324	331.1444	4.642m	EPS
16	197.3565	92.9055	329.8551	5.931m	Daylight

CHAINAGE 0+120.00

POINT	X	Y	Z	OFFSET	STRING CUT
1	221.0931	112.1216	320.7641	-18.037m	Daylight
2	219.5159	100.4227	332.5688	-6.233m	Hinge
3	219.5158	100.4217	332.3688	-6.232m	EPS_Sub
4	219.3823	99.4317	332.6088	-5.233m	Back_Curb
5	219.3623	99.2830	332.6088	-5.083m	Top_Curb
6	219.3567	99.2417	332.3838	-5.041m	Flowline_Gutter
7	219.2966	98.7958	332.0108	-4.591m	ETW_SubBase
8	219.2966	98.7958	332.4108	-4.591m	Flange
9	218.2825	91.2733	332.2211	2.999m	Flange
10	218.2825	91.2733	331.8211	2.999m	ETW_SubBase
11	218.2223	90.8273	332.1941	3.449m	Flowline_Gutter
12	218.2168	90.7860	332.4191	3.491m	Top_Curb
13	218.1967	90.6373	332.4191	3.641m	Back_Curb
14	218.0633	89.6473	332.1791	4.640m	EPS_Sub
15	218.0631	89.6463	332.3791	4.641m	EPS

16	217.8794	88.2833	331.0038	6.016m	Daylight

CHAINAGE 0+140.00

POINT	X	Y	Z	OFFSET	STRING CUT
1	239.1206	102.9041	328.6601	-10.338m	Daylight
2	238.8666	97.7923	333.7782	-5.220m	Hinge
3	238.8665	97.7913	333.5782	-5.219m	EPS_Sub
4	238.8170	96.7936	333.8182	-4.220m	Back_Curb
5	238.8095	96.6438	333.8182	-4.070m	Top_Curb
6	238.8074	96.6021	333.5932	-4.029m	Flowline_Gutter
7	238.7851	96.1527	333.6202	-3.579m	ETW
8	238.7851	96.1527	333.2202	-3.579m	ETW_SubBase
9	238.4586	89.5821	333.4557	3.000m	Flange
10	238.4586	89.5821	333.0557	3.000m	ETW_SubBase
11	238.4363	89.1327	333.4287	3.450m	Flowline_Gutter
12	238.4342	89.0911	333.6537	3.492m	Top_Curb
13	238.4267	88.9412	333.6537	3.642m	Back_Curb
14	238.3772	87.9435	333.4137	4.641m	EPS_Sub
15	238.3771	87.9425	333.6137	4.642m	Hinge_Cut
16	238.3704	87.8080	333.8830	4.776m	Daylight

CHAINAGE 0+160.00

POINT	X	Y	Z	OFFSET	STRING CUT
1	258.8026	96.5976	334.7279	-4.912m	Daylight
2	258.7908	96.3274	334.9984	-4.642m	Hinge
3	258.7907	96.3264	334.7984	-4.641m	EPS_Sub
4	258.7470	95.3284	335.0384	-3.642m	Back_Curb
5	258.7405	95.1785	335.0384	-3.492m	Top_Curb
6	258.7386	95.1368	334.8134	-3.450m	Flowline_Gutter
7	258.7189	94.6873	334.8404	-3.000m	ETW
8	258.7189	94.6873	334.4404	-3.000m	ETW_SubBase
9	258.4565	88.6930	334.6904	3.000m	Flange
10	258.4565	88.6930	334.2904	3.000m	ETW_SubBase
11	258.4368	88.2435	334.6634	3.450m	Flowline_Gutter
12	258.4350	88.2018	334.8884	3.492m	Top_Curb
13	258.4285	88.0519	334.8884	3.642m	Back_Curb
14	258.3848	87.0539	334.6484	4.641m	EPS_Sub
15	258.3847	87.0529	334.8484	4.642m	Hinge_Cut
16	258.3570	86.4205	336.1144	5.275m	Daylight

CHAINAGE 0+180.00

POINT	X	Y	Z	OFFSET	STRING CUT
1	278.8278	96.7369	338.7000	-5.927m	Daylight
2	278.7716	95.4527	336.1290	-4.642m	EPS
3	278.7716	95.4517	335.9290	-4.641m	EPS_Sub
4	278.7279	94.4536	336.1690	-3.642m	Back_Curb
5	278.7213	94.3038	336.1690	-3.492m	Top_Curb
6	278.7195	94.2621	335.9440	-3.450m	Flowline_Gutter

7	278.6998	93.8125	335.9710	-3.000m	ETW
8	278.6998	93.8125	335.5710	-3.000m	ETW_SubBase
9	278.4374	87.8183	335.4210	3.000m	ETW_SubBase
10	278.4374	87.8183	335.8210	3.000m	ETW
11	278.4177	87.3687	335.7940	3.450m	Flowline_Gutter
12	278.4159	87.3271	336.0190	3.492m	Top_Curb
13	278.4093	87.1772	336.0190	3.642m	Back_Curb
14	278.3656	86.1792	335.7790	4.641m	EPS_Sub
15	278.3656	86.1782	335.9790	4.642m	Hinge_Cut
16	278.3495	85.8115	336.7129	5.009m	Daylight

CHAINAGE 0+200.00

POINT	X	Y	Z	OFFSET	STRING CUT
1	298.8688	97.2345	333.9917	-7.301m	Daylight
2	298.7525	94.5779	336.6508	-4.642m	Hinge
3	298.7524	94.5769	336.4508	-4.641m	EPS_Sub
4	298.7087	93.5789	336.6908	-3.642m	Back_Curb
5	298.7022	93.4290	336.6908	-3.492m	Top_Curb
6	298.7004	93.3874	336.4658	-3.450m	Flowline_Gutter
7	298.6807	92.9378	336.0928	-3.000m	ETW_SubBase
8	298.6807	92.9378	336.4928	-3.000m	Flange
9	298.4182	86.9435	336.3428	3.000m	Flange
10	298.4182	86.9435	335.9428	3.000m	ETW_SubBase
11	298.3986	86.4940	336.3158	3.450m	Flowline_Gutter
12	298.3967	86.4523	336.5408	3.492m	Top_Curb
13	298.3902	86.3025	336.5408	3.642m	Back_Curb
14	298.3465	85.3044	336.3008	4.641m	EPS_Sub
15	298.3464	85.3034	336.5008	4.642m	EPS
16	298.2895	84.0035	335.1997	5.943m	Daylight

CHAINAGE 0+220.00

POINT	X	Y	Z	OFFSET	STRING CUT
1	319.1767	105.9040	325.3285	-16.843m	Daylight
2	318.7259	94.1613	337.0798	-5.092m	Hinge
3	318.7259	94.1603	336.8798	-5.091m	EPS_Sub
4	318.6876	93.1620	337.1198	-4.092m	Back_Curb
5	318.6818	93.0121	337.1198	-3.942m	Top_Curb
6	318.6802	92.9704	336.8948	-3.900m	Flowline_Gutter
7	318.6630	92.5208	336.5218	-3.450m	ETW_SubBase
8	318.6630	92.5208	336.9218	-3.450m	Flange
9	318.4156	86.0762	336.7606	2.999m	Flange
10	318.4156	86.0762	336.3606	2.999m	ETW_SubBase
11	318.3983	85.6266	336.7336	3.449m	Flowline_Gutter
12	318.3967	85.5849	336.9586	3.491m	Top_Curb
13	318.3910	85.4350	336.9586	3.641m	Back_Curb
14	318.3527	84.4367	336.7186	4.640m	EPS_Sub
15	318.3526	84.4357	336.9186	4.641m	EPS
16	318.2865	82.7130	335.1947	6.365m	Daylight

CHAINAGE 0+240.00

POINT	X	Y	Z	OFFSET	STRING CUT
1	335.9518	106.6884	326.5312	-17.148m	Daylight
2	337.5788	95.8165	337.5242	-6.155m	Hinge
3	337.5789	95.8155	337.3242	-6.154m	EPS_Sub
4	337.7268	94.8275	337.5642	-5.155m	Back_Curb
5	337.7490	94.6791	337.5642	-5.005m	Top_Curb
6	337.7552	94.6379	337.3392	-4.963m	Flowline_Gutter
7	337.8218	94.1929	336.9662	-4.513m	ETW_SubBase
8	337.8218	94.1929	337.3662	-4.513m	Flange
9	338.9338	86.7622	337.1784	3.000m	Flange
10	338.9338	86.7622	336.7784	3.000m	ETW_SubBase
11	339.0004	86.3172	337.1514	3.450m	Flowline_Gutter
12	339.0065	86.2759	337.3764	3.492m	Top_Curb
13	339.0287	86.1276	337.3764	3.642m	Back_Curb
14	339.1766	85.1396	337.1364	4.641m	EPS_Sub
15	339.1768	85.1386	337.3364	4.642m	EPS
16	339.6714	81.8330	333.9940	7.984m	Daylight

CHAINAGE 0+260.00

POINT	X	Y	Z	OFFSET	STRING CUT
1	350.8075	107.1243	330.9934	-12.578m	Daylight
2	354.3534	101.1634	337.9292	-5.642m	Hinge
3	354.3539	101.1625	337.7292	-5.641m	EPS_Sub
4	354.8646	100.3040	337.9692	-4.642m	Back_Curb
5	354.9413	100.1751	337.9692	-4.492m	Top_Curb
6	354.9626	100.1392	337.7442	-4.450m	Flowline_Gutter
7	355.1927	99.7525	337.3712	-4.000m	ETW_SubBase
8	355.1927	99.7525	337.7712	-4.000m	Flange
9	358.7713	93.7364	337.5962	3.000m	Flange
10	358.7713	93.7364	337.1962	3.000m	ETW_SubBase
11	359.0014	93.3497	337.5692	3.450m	Flowline_Gutter
12	359.0227	93.3138	337.7942	3.492m	Top_Curb
13	359.0994	93.1849	337.7942	3.642m	Back_Curb
14	359.6101	92.3263	337.5542	4.641m	EPS_Sub
15	359.6106	92.3255	337.7542	4.642m	EPS
16	360.3361	91.1059	336.3351	6.061m	Daylight

CHAINAGE 0+280.00

POINT	X	Y	Z	OFFSET	STRING CUT
1	363.3962	116.4213	333.6111	-11.023m	Daylight
2	367.1240	113.4747	338.3627	-6.272m	Hinge
3	367.1248	113.4741	338.1627	-6.271m	EPS_Sub
4	367.9085	112.8546	338.4027	-5.272m	Back_Curb
5	368.0262	112.7616	338.4027	-5.122m	Top_Curb
6	368.0589	112.7358	338.1777	-5.080m	Flowline_Gutter
7	368.4120	112.4567	338.2047	-4.630m	ETW

8	368.4120	112.4567	337.8047	-4.630m	ETW_SubBase
9	374.3975	107.7256	338.0140	2.999m	Flange
10	374.3975	107.7256	337.6140	2.999m	ETW_SubBase
11	374.7506	107.4466	337.9870	3.449m	Flowline_Gutter
12	374.7833	107.4207	338.2120	3.491m	Top_Curb
13	374.9010	107.3277	338.2120	3.641m	Back_Curb
14	375.6847	106.7082	337.9720	4.640m	EPS_Sub
15	375.6855	106.7076	338.1720	4.641m	Hinge_Cut
16	375.8923	106.5441	338.6992	4.905m	Daylight

CHAINAGE 0+300.00

POINT	X	Y	Z	OFFSET	STRING CUT
1	376.5090	130.1741	335.7998	-7.582m	Daylight
2	379.0334	128.6669	338.7398	-4.642m	Hinge
3	379.0342	128.6664	338.5398	-4.641m	EPS_Sub
4	379.8920	128.1543	338.7798	-3.642m	Back_Curb
5	380.0208	128.0774	338.7798	-3.492m	Top_Curb
6	380.0566	128.0561	338.5548	-3.450m	Flowline_Gutter
7	380.4430	127.8254	338.5818	-3.000m	ETW
8	380.4430	127.8254	338.1818	-3.000m	ETW_SubBase
9	385.5947	124.7496	338.4318	3.000m	Flange
10	385.5947	124.7496	338.0318	3.000m	ETW_SubBase
11	385.9810	124.5190	338.4048	3.450m	Flowline_Gutter
12	386.0168	124.4976	338.6298	3.492m	Top_Curb
13	386.1456	124.4207	338.6298	3.642m	Back_Curb
14	387.0034	123.9086	338.3898	4.641m	EPS_Sub
15	387.0042	123.9081	338.5898	4.642m	Hinge_Cut
16	388.1767	123.2081	341.3208	6.007m	Daylight

CHAINAGE 0+320.00

POINT	X	Y	Z	OFFSET	STRING CUT
1	386.5693	148.4261	334.9230	-8.876m	Daylight
2	389.9824	145.9195	339.1576	-4.642m	Hinge
3	389.9832	145.9189	338.9576	-4.641m	EPS_Sub
4	390.7883	145.3276	339.1976	-3.642m	Back_Curb
5	390.9092	145.2388	339.1976	-3.492m	Top_Curb
6	390.9429	145.2141	338.9726	-3.450m	Flowline_Gutter
7	391.3055	144.9478	338.9996	-3.000m	ETW
8	391.3055	144.9478	338.5996	-3.000m	ETW_SubBase
9	397.4150	140.4609	338.8101	4.580m	Flange
10	397.4150	140.4609	338.4101	4.580m	ETW_SubBase
11	397.7777	140.1945	338.7831	5.030m	Flowline_Gutter
12	397.8113	140.1698	339.0081	5.072m	Top_Curb
13	397.9322	140.0810	339.0081	5.222m	Back_Curb
14	398.7374	139.4897	338.7681	6.221m	EPS_Sub
15	398.7382	139.4891	338.9681	6.222m	Hinge_Cut
16	399.2036	139.1473	340.1229	6.799m	Daylight

CHAINAGE 0+340.00

POINT	X	Y	Z	OFFSET	STRING CUT
1	404.8856	161.5644	338.9426	-5.274m	Daylight
2	405.2400	161.0402	339.5754	-4.642m	Hinge
3	405.2406	161.0393	339.3754	-4.641m	EPS_Sub
4	405.8002	160.2118	339.6154	-3.642m	Back_Curb
5	405.8842	160.0875	339.6154	-3.492m	Top_Curb
6	405.9075	160.0530	339.3904	-3.450m	Flowline_Gutter
7	406.1596	159.6802	339.4174	-3.000m	ETW
8	406.1596	159.6802	339.0174	-3.000m	ETW_SubBase
9	410.0805	153.8813	339.2424	4.000m	Flange
10	410.0805	153.8813	338.8424	4.000m	ETW_SubBase
11	410.3325	153.5085	339.2154	4.450m	Flowline_Gutter
12	410.3559	153.4740	339.4404	4.492m	Top_Curb
13	410.4399	153.3497	339.4404	4.642m	Back_Curb
14	410.9995	152.5222	339.2004	5.641m	EPS_Sub
15	411.0000	152.5213	339.4004	5.642m	Hinge_Cut
16	412.1009	150.8933	343.3310	7.607m	Daylight

CHAINAGE 0+360.00

POINT	X	Y	Z	OFFSET	STRING CUT
1	424.2167	174.7592	334.5154	-10.120m	Daylight
2	425.2797	169.3856	339.9932	-4.642m	Hinge
3	425.2799	169.3846	339.7932	-4.641m	EPS_Sub
4	425.4738	168.4046	340.0332	-3.642m	Back_Curb
5	425.5029	168.2575	340.0332	-3.492m	Top_Curb
6	425.5110	168.2165	339.8082	-3.450m	Flowline_Gutter
7	425.5983	167.7751	339.8352	-3.000m	ETW
8	425.5983	167.7751	339.4352	-3.000m	ETW_SubBase
9	426.9764	160.8086	339.6576	4.101m	Flange
10	426.9764	160.8086	339.2576	4.101m	ETW_SubBase
11	427.0638	160.3672	339.6306	4.551m	Flowline_Gutter
12	427.0718	160.3263	339.8556	4.593m	Top_Curb
13	427.1010	160.1791	339.8556	4.743m	Back_Curb
14	427.2948	159.1991	339.6156	5.742m	EPS_Sub
15	427.2950	159.1982	339.8156	5.743m	Hinge_Cut
16	427.5949	157.6824	342.9058	7.288m	Daylight

CHAINAGE 0+380.00

POINT	X	Y	Z	OFFSET	STRING CUT
1	446.7732	178.8812	331.9786	-13.073m	Daylight
2	446.3417	170.4599	340.4110	-4.641m	Hinge
3	446.3417	170.4589	340.2110	-4.640m	EPS_Sub
4	446.2905	169.4612	340.4510	-3.641m	Back_Curb
5	446.2829	169.3114	340.4510	-3.491m	Top_Curb
6	446.2807	169.2697	340.2260	-3.449m	Flowline_Gutter
7	446.2577	168.8203	340.2530	-2.999m	ETW

8	446.2577	168.8203	339.8530	-2.999m	ETW_SubBase
9	445.9012	161.8620	340.0788	3.968m	Flange
10	445.9012	161.8620	339.6788	3.968m	ETW_SubBase
11	445.8781	161.4126	340.0518	4.418m	Flowline_Gutter
12	445.8760	161.3710	340.2768	4.460m	Top_Curb
13	445.8683	161.2212	340.2768	4.610m	Back_Curb
14	445.8172	160.2235	340.0368	5.609m	EPS_Sub
15	445.8172	160.2225	340.2368	5.610m	Hinge_Cut
16	445.7691	159.2842	342.1158	6.549m	Daylight

CHAINAGE 0+400.00

POINT	X	Y	Z	OFFSET	STRING CUT
1	466.7098	173.1168	336.7191	-8.751m	Daylight
2	466.4011	169.0188	340.8288	-4.642m	Hinge
3	466.4010	169.0178	340.6288	-4.641m	EPS_Sub
4	466.3259	168.0216	340.8688	-3.642m	Back_Curb
5	466.3147	167.8720	340.8688	-3.492m	Top_Curb
6	466.3115	167.8304	340.6438	-3.450m	Flowline_Gutter
7	466.2777	167.3817	340.6708	-3.000m	ETW
8	466.2777	167.3817	340.2708	-3.000m	ETW_SubBase
9	465.8269	161.3987	340.5208	3.000m	Flange
10	465.8269	161.3987	340.1208	3.000m	ETW_SubBase
11	465.7931	160.9499	340.4938	3.450m	Flowline_Gutter
12	465.7900	160.9084	340.7188	3.492m	Top_Curb
13	465.7787	160.7588	340.7188	3.642m	Back_Curb
14	465.7037	159.7626	340.4788	4.641m	EPS_Sub
15	465.7036	159.7616	340.6788	4.642m	Hinge_Cut
16	465.5906	158.2623	343.6858	6.145m	Daylight

CHAINAGE 0+420.00

POINT	X	Y	Z	OFFSET	STRING CUT
1	486.5956	170.8482	337.9051	-7.983m	Daylight
2	486.3445	167.5161	341.2466	-4.642m	Hinge
3	486.3445	167.5151	341.0466	-4.641m	EPS_Sub
4	486.2694	166.5190	341.2866	-3.642m	Back_Curb
5	486.2581	166.3694	341.2866	-3.492m	Top_Curb
6	486.2550	166.3278	341.0616	-3.450m	Flowline_Gutter
7	486.2212	165.8791	341.0886	-3.000m	ETW
8	486.2212	165.8791	340.6886	-3.000m	ETW_SubBase
9	485.7704	159.8960	340.9386	3.000m	Flange
10	485.7704	159.8960	340.5386	3.000m	ETW_SubBase
11	485.7366	159.4473	340.9116	3.450m	Flowline_Gutter
12	485.7335	159.4057	341.1366	3.492m	Top_Curb
13	485.7222	159.2562	341.1366	3.642m	Back_Curb
14	485.6471	158.2600	340.8966	4.641m	EPS_Sub
15	485.6471	158.2590	341.0966	4.642m	Hinge_Cut
16	485.3990	154.9670	347.6992	7.943m	Daylight

CHAINAGE 0+440.00

POINT	X	Y	Z	OFFSET	STRING CUT
1	506.2890	166.0264	341.6902	-4.655m	Daylight
2	506.2880	166.0135	341.6644	-4.642m	EPS
3	506.2879	166.0125	341.4644	-4.641m	EPS_Sub
4	506.2129	165.0163	341.7044	-3.642m	Back_Curb
5	506.2016	164.8668	341.7044	-3.492m	Top_Curb
6	506.1985	164.8252	341.4794	-3.450m	Flowline_Gutter
7	506.1647	164.3765	341.5064	-3.000m	ETW
8	506.1647	164.3765	341.1064	-3.000m	ETW_SubBase
9	505.7139	158.3934	340.9564	3.000m	ETW_SubBase
10	505.7139	158.3934	341.3564	3.000m	ETW
11	505.6801	157.9447	341.3294	3.450m	Flowline_Gutter
12	505.6769	157.9031	341.5544	3.492m	Top_Curb
13	505.6657	157.7535	341.5544	3.642m	Back_Curb
14	505.5906	156.7574	341.3144	4.641m	EPS_Sub
15	505.5905	156.7564	341.5144	4.642m	Hinge_Cut
16	505.2360	152.0504	350.9530	9.361m	Daylight

CHAINAGE 0+460.00

POINT	X	Y	Z	OFFSET	STRING CUT
1	526.4079	166.8520	339.7344	-6.989m	Daylight
2	526.2315	164.5109	342.0822	-4.642m	Hinge
3	526.2314	164.5099	341.8822	-4.641m	EPS_Sub
4	526.1563	163.5137	342.1222	-3.642m	Back_Curb
5	526.1451	163.3641	342.1222	-3.492m	Top_Curb
6	526.1419	163.3226	341.8972	-3.450m	Flowline_Gutter
7	526.1081	162.8738	341.9242	-3.000m	ETW
8	526.1081	162.8738	341.5242	-3.000m	ETW_SubBase
9	525.6573	156.8908	341.7742	3.000m	Flange
10	525.6573	156.8908	341.3742	3.000m	ETW_SubBase
11	525.6235	156.4421	341.7472	3.450m	Flowline_Gutter
12	525.6204	156.4005	341.9722	3.492m	Top_Curb
13	525.6091	156.2509	341.9722	3.642m	Back_Curb
14	525.5341	155.2547	341.7322	4.641m	EPS_Sub
15	525.5340	155.2537	341.9322	4.642m	Hinge_Cut
16	525.2512	151.5001	349.4608	8.406m	Daylight

CHAINAGE 0+480.00

POINT	X	Y	Z	OFFSET	STRING CUT
1	546.7803	171.0434	334.4420	-12.700m	Daylight
2	546.1749	163.0083	342.5000	-4.642m	Hinge
3	546.1749	163.0073	342.3000	-4.641m	EPS_Sub
4	546.0998	162.0111	342.5400	-3.642m	Back_Curb
5	546.0885	161.8615	342.5400	-3.492m	Top_Curb
6	546.0854	161.8199	342.3150	-3.450m	Flowline_Gutter
7	546.0516	161.3712	342.3420	-3.000m	ETW

8	546.0516	161.3712	341.9420	-3.000m	ETW_SubBase
9	545.6008	155.3882	342.1920	3.000m	Flange
10	545.6008	155.3882	341.7920	3.000m	ETW_SubBase
11	545.5670	154.9394	342.1650	3.450m	Flowline_Gutter
12	545.5639	154.8979	342.3900	3.492m	Top_Curb
13	545.5526	154.7483	342.3900	3.642m	Back_Curb
14	545.4775	153.7521	342.1500	4.641m	EPS_Sub
15	545.4775	153.7511	342.3500	4.642m	Hinge_Cut
16	545.2520	150.7584	348.3523	7.643m	Daylight

6.4. Vertikalni tok trase

Profile PVI Station & Curve Report

Client:
Client
Client Company
Address 1

Prepared by:
Preparer
Your Company Name
123 Main Street

Date: 15.9.2022. 17:25:05

Vertical Alignment: niveleta
Description:
Station Range: Start: 0+000.00, End: 48+659.00

PVI	Station	Grade Out	Curve Length
0.00	0+000.00	6.17%	
1.00	0+180.00	2.09%	20.365m
	Vertical Curve Information:(crest curve) --- PVC Station: 0+169.83 Elevation: 335.372m PVI Station: 0+180.00 Elevation: 336.000m PVT Station: 0+190.19 Elevation: 336.213m High Point: 0+190.19 Elevation: 336.213m Grade in: 6.17% Grade out: 2.09% Change: 4.08% K: Curve Length: 20.365m Passing Distance: Stopping Distance:		
2.00	0+486.59		

7. LITERATURA

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