

# **RELACION TEKNIK**

**Objekti : “KANALI VADITES, TUÇEP, BULQIZE”**

**Bashkia Bulqize**

**Autor i Projektit  
“ERALD - G” shpk**



**2016**

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## I.HYRJE

Projekt Zbatimi është përgatitur në bazë të kontratës së projektimit të nënshkruar ndërmjet Bashkisë Bulqize dhe firmës projektuese “ERALD-G” sh.p.k.

Me nënshkrimin e kësaj kontrate dhe mbas miratimit të projekt idesë sipas detyrës së projektimit të marre nga Bashkia Bulqize, në planimetri të zonës në shkallë 1:5000, u fiksua përfundimisht zona ku do të përdoret për realizimin e kërkesave të detyrës së projektimit për objektin: ”KANALI VADITËS M TUÇEP, BULQIZË”.

## 2.PERSHKRIM I PERGJITHSHEM

Vendndodhja e kanalit



### 3.PERSHKRIMI I SHKURTER I GJENDJES

Vendndodhja : Tucep, BashkiaBulqize

KanalivaditesfillonneTucepdhepasikalonnje sere vendbanimeshshiTerbac, Cerenec I Eperm, e Gjorice e Siperme, ndalon ne GjoricetePoshtme. Ai furnizohet me ujengaperroi I Tucepit. Ai perbehetngalugje, priza, nenkalime, ura, sifoneetj.

### 4. QELLIMI I PROJEKTIT

Rehabilitimtëpjesëvetëdemtuaratekanalit ne gjithëgjatesine e tij, me veshje me beton, riparimemuresh, lugjesh, plotësimvepraarti, etj. përtibërëatafunksional.

Konsulenti do tëstudiojëdhetëmarrënëkonsideratëçdoprojektapostudimtëmëparshëm.

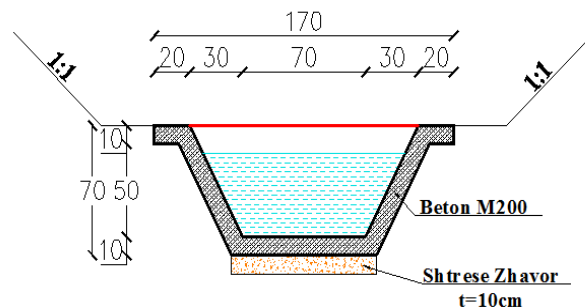
Konsulenti do duhetpërdorëmetodallogaritësetashmëtnjohuradhetëmiratuarangainstitucionet e specializuarashqiptare.

Konsulenti do tëmbështetetdhetëzbatojëlegjislacioninshqiptarpërkëtëqëllim.

### 5.LLOGARITJET HIDRAULIKE TE KANALEVE

#### SEKSIONI TIP 1

Prog.0-325m.



**Section details** Metric Imperial

Manning's coefficient

Length in meters

Internal height

Internal width

Left bank width

Right bank width

Fluid depth (uniform flow)

Drop in meters

Increase  
Reduce

**Results**

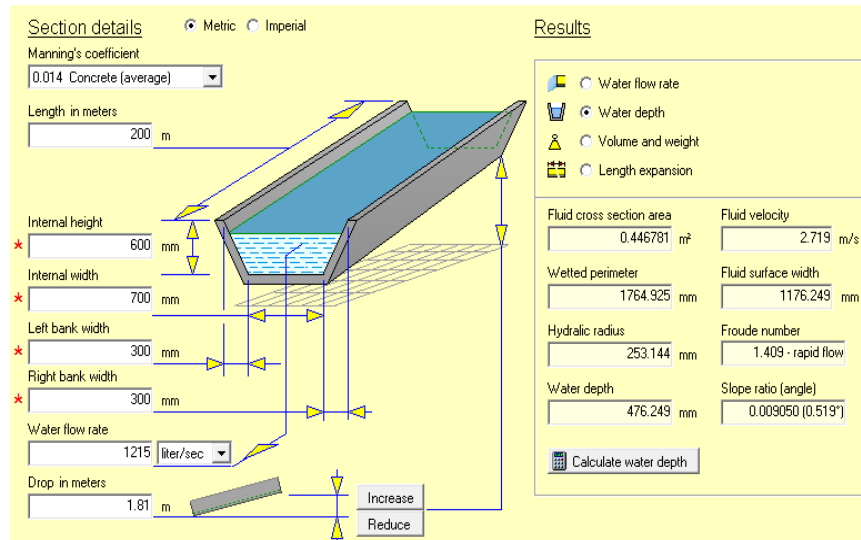
- Water flow rate
- Water depth
- Volume and weight
- Length expansion

Fluid cross section area <input type="text" value="0.416250 m²"/>	Fluid velocity <input type="text" value="2.919 m/s"/>
Wetted perimeter <input type="text" value="1706.231 mm"/>	Fluid surface width <input type="text" value="1150.000 mm"/>
Hydraulic radius <input type="text" value="243.959 mm"/>	Froude number <input type="text" value="1.549 - rapid flow"/>

Water flow rate

Slope ratio (angle)

Calculate water flow rate

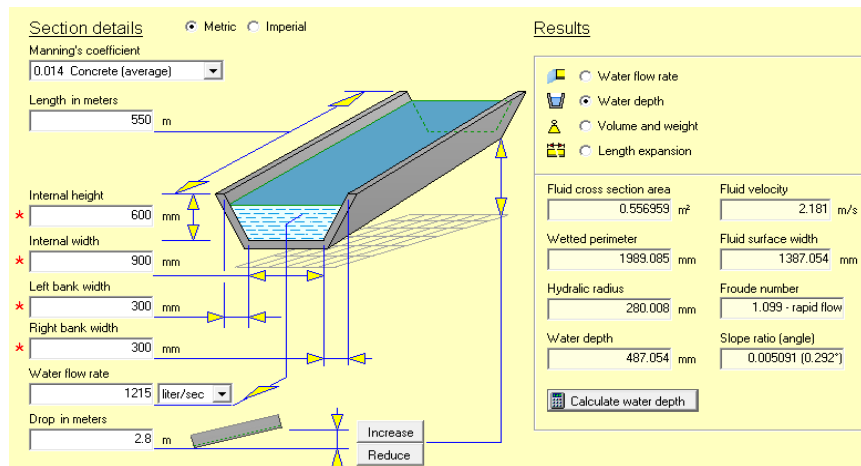
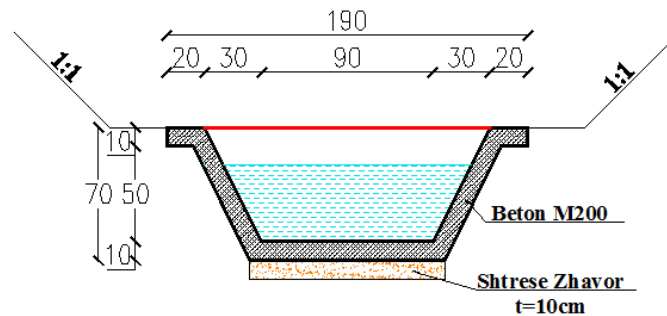


**Elementet Hidraulik:**

Q=1215l/sec, V=2.719m/s, WP=1764.925 lmm, Fs=1176.249mm  
 R=253.144mm, Nf=1.409 (lev. turbulente), Hu=476.249mm

**SEKSIONI TIP 2**

Prog. 325-875m.

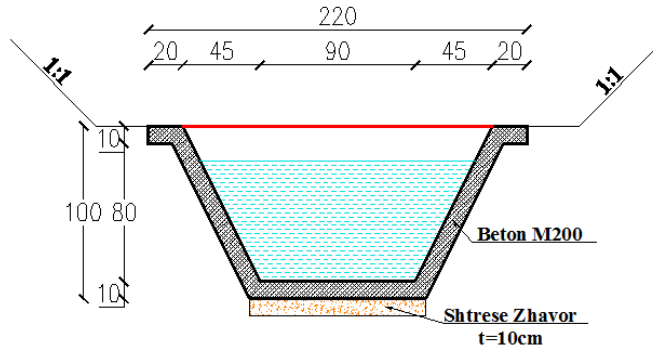


**Elementet Hidraulik:**

Q=1215l/sec, V=2.181m/s, WP=1989.085mm, Fs=1387.054mm  
 R=280.008mm, Nf=1.099 (lev.turbulente), Hu=487.054mm

**SEKSIONI TIP 3**

Prog.875-2800m.



**Section details**  Metric  Imperial

Manning's coefficient: 0.014 Concrete (average)

Length in meters: 575 m

Internal height: 900 mm

Internal width: 900 mm

Left bank width: 450 mm

Right bank width: 450 mm

Water flow rate: 1215 liter/sec

Drop in meters: 0.69 m

**Results**

- Water flow rate
- Water depth
- Volume and weight
- Length expansion

Fluid cross section area: 0.952204 m <sup>2</sup>	Fluid velocity: 1.276 m/s
Wetted perimeter: 2571.563 mm	Fluid surface width: 1647.546 mm
Hydraulic radius: 370.282 mm	Froude number: 0.536 - tranquil flow
Water depth: 747.546 mm	Slope ratio (angle): 0.001200 (0.069°)

Calculate water depth

**Section details**  Metric  Imperial

Manning's coefficient: 0.014 Concrete (average)

Length in meters: 1350 m

Internal height: 900 mm

Internal width: 900 mm

Left bank width: 450 mm

Right bank width: 450 mm

Water flow rate: 1215 liter/sec

Drop in meters: 1.643 m

**Results**

- Water flow rate
- Water depth
- Volume and weight
- Length expansion

Fluid cross section area: 0.947177 m <sup>2</sup>	Fluid velocity: 1.283 m/s
Wetted perimeter: 2564.735 mm	Fluid surface width: 1644.492 mm
Hydraulic radius: 369.308 mm	Froude number: 0.540 - tranquil flow
Water depth: 744.492 mm	Slope ratio (angle): 0.001217 (0.070°)

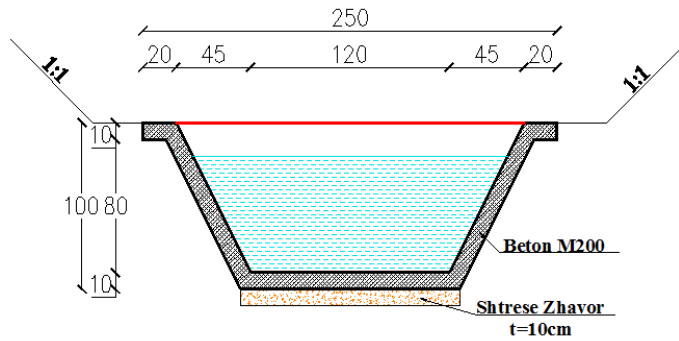
Calculate water depth

**Elementet Hidraulik:**

Q=1215l/sec, V=1.283m/s, WP=2564.73mm, Fs=1644.49mm  
 R=369.308mm, Nf=0.54 (lev.laminare), Hu=744.49mm

**SEKSIONI TIP 4**

Prog.2800-3825m.



**Section details**     Metric     Imperial

Manning's coefficient  
 Concrete (average)

Length in meters  
 m

Internal height  
 mm

Internal width  
 mm

Left bank width  
 mm

Right bank width  
 mm

Water flow rate  
 liter/sec

Drop in meters  
 m

**Results**

Water flow rate  
 Water depth  
 Volume and weight  
 Length expansion

Fluid cross section area <input type="text" value="1.221242"/> m <sup>2</sup>	Fluid velocity <input type="text" value="0.995"/> m/s
Wetted perimeter <input type="text" value="2922.672"/> mm	Fluid surface width <input type="text" value="1970.402"/> mm
Hydraulic radius <input type="text" value="417.851"/> mm	Froude number <input type="text" value="0.404 - tranquil flow"/>
Water depth <input type="text" value="770.402"/> mm	Slope ratio (angle) <input type="text" value="0.000621 (0.036°)"/>

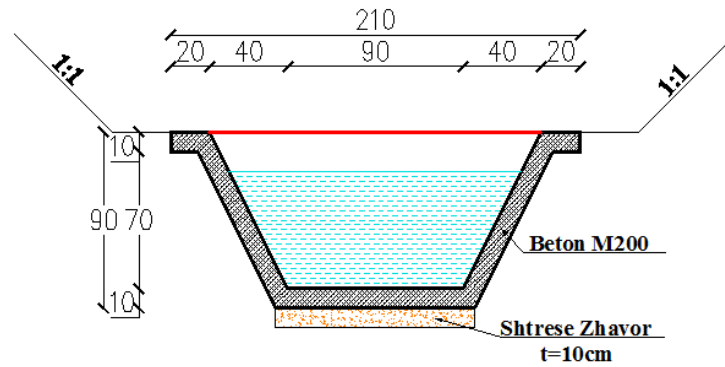
**Elementet Hidraulik:**

Q=1215l/sec, V=0.995m/s, WP=2922.672mm, Fs=1970.402mm  
 R=417.851mm, Nf=0.404 (lev.laminare), Hu=770.402mm

**SEKSIONI TIP 5**

Prog.3825-5025m.

Prog.16350-18225m.



Section details  Metric  Imperial

Manning's coefficient  
0.014 Concrete (average)

Length in meters  
1175 m

Internal height  
800 mm

Internal width  
900 mm

Left bank width  
400 mm

Right bank width  
400 mm

Water flow rate  
1215 liter/sec

Drop in meters  
2.476 m

Increase  
Reduce

Results

- Water flow rate
- Water depth
- Volume and weight
- Length expansion

Fluid cross section area 0.771424 m <sup>2</sup>	Fluid velocity 1.575 m/s
Wetted perimeter 2317.443 mm	Fluid surface width 1533.900 mm
Hydraulic radius 332.877 mm	Froude number 0.709 - tranquil flow
Water depth 633.900 mm	Slope ratio (angle) 0.002107 (0.121°)

Calculate water depth

**Elementet Hidraulik:**

Q=1215l/sec, V=1.575m/s, WP=2317.44mm, Fs=1533.9mm

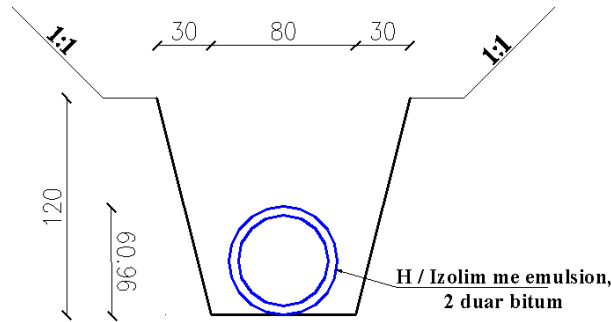
R=332.877mm, Nf=0.709 (lev.laminare), Hu=633.9mm



**SEKSIONI TIP 6**

Prog.5025-5475m.

**SEKSIONI TIP 6**  
**Sifon me Tub Çeliku Ekz.**  
**Prog: 5025-5475 m**



**Pipe details**     Metric     Imperial

Manning's coefficient

Length in meters

Internal diameter

Drop in meters

**Results**

- Water flow rate
- Water depth
- Volume and weight
- Length expansion

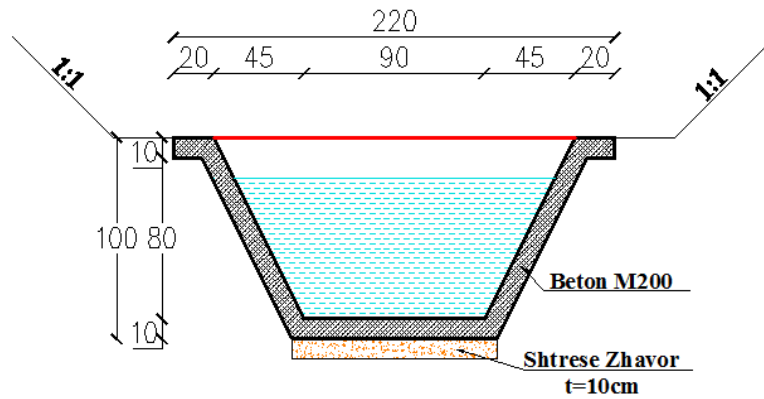
Fluid cross section area	Fluid velocity
0.291864 m <sup>2</sup>	3.871 m/s
Wetted perimeter	
1915.115 mm	
Hydraulic radius	
152.400 mm	
Water flow rate	
1129.936 liter/sec	<input type="button" value="Max. Flow"/>
Slope ratio (angle)	
<input type="button" value="Calculate water flow rate"/> 0.026507 (1.518°)	

**Elementet Hidraulik:**

Q=1129.9l/sec, V=3.871m/s, WP=1915.115mm,  
 R=152.400mm, A=0.2918m<sup>2</sup>

**SEKSIONI TIP 7**

Prog.5450-6575m.



Section details     Metric     Imperial

Manning's coefficient

Length in meters

Internal height

Internal width

Left bank width

Right bank width

Water flow rate  
 liter/sec

Drop in meters

Increase  
Reduce

Results

Water flow rate  
 Water depth  
 Volume and weight  
 Length expansion

Fluid cross section area	Fluid velocity
<input type="text" value="0.981614"/> m <sup>2</sup>	<input type="text" value="1.238"/> m/s
Wetted perimeter	Fluid surface width
<input type="text" value="2611.265"/> mm	<input type="text" value="1665.301"/> mm
Hydraulic radius	Froude number
<input type="text" value="375.915"/> mm	<input type="text" value="0.515 - tranquil flow"/>
Water depth	Slope ratio (angle)
<input type="text" value="765.301"/> mm	<input type="text" value="0.001107 (0.063°)"/>

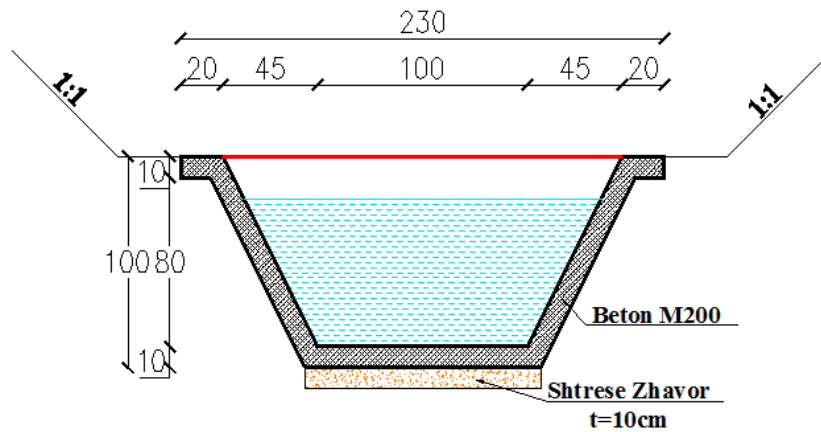
**Elementet Hidraulik:**

Q=500l/sec, V=1.238m/s, WP=2611.265mm, Fs=1665.301mm

R=375.915mm, Nf=0.515 (lev.laminare), Hu=765.301mm

**SEKSIONI TIP 8**

Prog.6575-8230m.



**Section details**     Metric    Imperial

Manning's coefficient

Length in meters

Internal height  
 mm

Internal width  
 mm

Left bank width  
 mm

Right bank width  
 mm

Water flow rate  
 liter/sec

Drop in meters  
 m

Increase  
Reduce

**Results**

- Water flow rate
- Water depth
- Volume and weight
- Length expansion

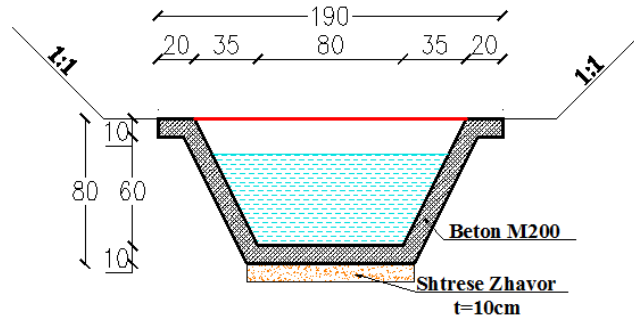
Fluid cross section area <input type="text" value="1.068081"/> m <sup>2</sup>	Fluid velocity <input type="text" value="1.138"/> m/s
Wetted perimeter <input type="text" value="2723.833"/> mm	Fluid surface width <input type="text" value="1770.921"/> mm
Hydraulic radius <input type="text" value="392.124"/> mm	Froude number <input type="text" value="0.468 - tranquil flow"/>
Water depth <input type="text" value="770.921"/> mm	Slope ratio (angle) <input type="text" value="0.000884 (0.051°)"/>

**Elementet Hidraulik:**

Q=1215l/sec, V=1.138m/s, WP=2723.833mm, Fs=1770.921mm

R=392.124mm, Nf=0.468 (lev.laminare), Hu=770.921mm

**SEKSIONI TIP 9**  
Prog.8230-8560m.



Section details  Metric  Imperial

Manning's coefficient  
0.014 Concrete (average)

Length in meters  
325 m

Internal height  
700 mm

Internal width  
800 mm

Left bank width  
350 mm

Right bank width  
350 mm

Water flow rate  
1215 liter/sec

Drop in meters  
1.188 m

Increase  
Reduce

Results

Water flow rate  
 Water depth  
 Volume and weight  
 Length expansion

Fluid cross section area 0.627335 m <sup>2</sup>	Fluid velocity 1.937 m/s
Wetted perimeter 2089.026 mm	Fluid surface width 1376.470 mm
Hydraulic radius 300.300 mm	Froude number 0.916 - tranquil flow
Water depth 576.470 mm	Slope ratio (angle) 0.003655 (0.209°)

Calculate water depth

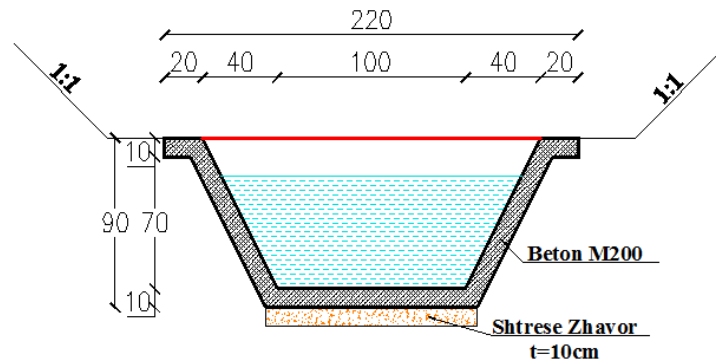
**Elementet Hidraulik:**

Q=1215l/sec, V=1.937m/s, WP=2089.026mm, Fs=1376.47mm  
R=300.3mm, Nf=0.916 (lev.laminare), Hu=576.47mm

**SEKSIONI TIP 10**

Prog.8560-9820m.

Prog. 15835-16285m.



**Section details**     Metric     Imperial

Manning's coefficient

Length in meters  
 m

Internal height  
 mm

Internal width  
 mm

Left bank width  
 mm

Right bank width  
 mm

Water flow rate  
 liter/sec

Drop in meters  
 m

**Results**

- Water flow rate
- Water depth
- Volume and weight
- Length expansion

Fluid cross section area <input type="text" value="0.862513"/> m <sup>2</sup>	Fluid velocity <input type="text" value="1.409"/> m/s
Wetted perimeter <input type="text" value="2455.155"/> mm	Fluid surface width <input type="text" value="1650.765"/> mm
Hydraulic radius <input type="text" value="351.307"/> mm	Froude number <input type="text" value="0.622 - tranquil flow"/>
Water depth <input type="text" value="650.765"/> mm	Slope ratio (angle) <input type="text" value="0.001563 (0.090°)"/>

**ElementetHidraulik:**

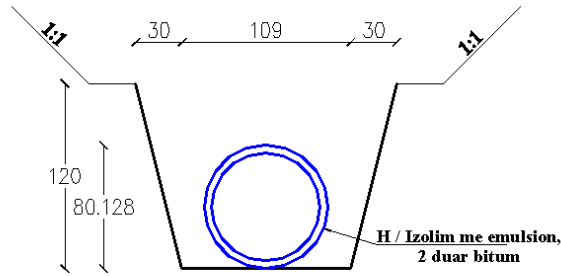
Q=1215l/sec, V=1.409m/s, WP=2455.155mm, Fs=1650.765mm

R=351.307mm, Nf=0.622 (lev.laminare), Hu=650.765mm

**SEKSIONI TIP 11**

Prog.9850-10050m.

**SEKSION TIP 11**  
**SIFON I RI TUB ÇELIKU**  
**F812.8/7.92mm**  
**Prog: 9850-10050 m**



**Pipe details**     Metric     Imperial

Manning's coefficient

Length in meters  
 m

Internal diameter  
 mm

Drop in meters  
 m

**Results**

- Water flow rate
- Water depth
- Volume and weight
- Length expansion

Fluid cross section area	Fluid velocity
0.518868 m <sup>2</sup>	2.433 m/s
Wetted perimeter	
2553.487 mm	
Hydraulic radius	
203.200 mm	
Water flow rate	
<input type="text" value="1262.510"/> liter/sec <input type="button" value="Max. Flow"/>	
<input type="button" value="Calculate water flow rate"/> Slope ratio (angle)	
<input type="text" value="0.007135 (0.409°)"/>	

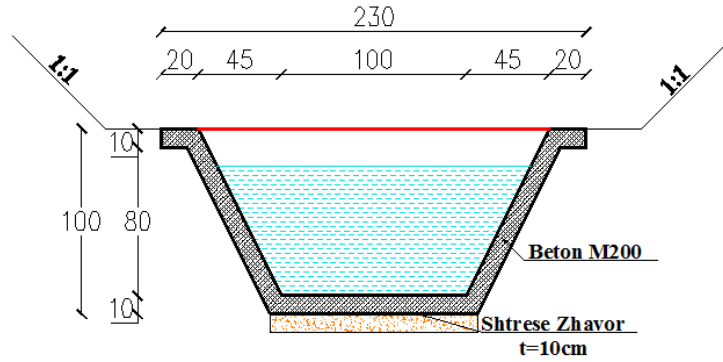
**Elementet Hidraulik:**

Q=1262.5l/sec, V=2.433m/s, WP=2553.487mm,

R=203.2mm, A=0.518868m<sup>2</sup>

**SEKSIONI TIP 12**

Prog.10050-12925m.



**Section details**     Metric     Imperial

Manning's coefficient

Length in meters

Internal height

Internal width

Left bank width

Right bank width

Water flow rate

Drop in meters

**Results**

- Water flow rate
- Water depth
- Volume and weight
- Length expansion

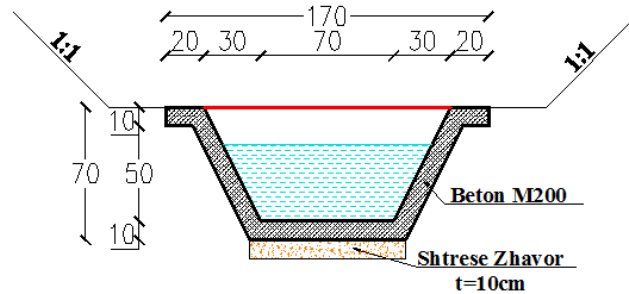
Fluid cross section area <input type="text" value="1.057613 m²"/>	Fluid velocity <input type="text" value="1.149 m/s"/>
Wetted perimeter <input type="text" value="2710.592 mm"/>	Fluid surface width <input type="text" value="1765.000 mm"/>
Hydraulic radius <input type="text" value="390.178 mm"/>	Froude number <input type="text" value="0.474 - tranquil flow"/>
Water depth <input type="text" value="765.000 mm"/>	Slope ratio (angle) <input type="text" value="0.000907 (0.052°)"/>

**Elementet Hidraulik:**

Q=1215l/sec, V=1.149m/s, WP=2710.592mm, Fs=1765.0mm  
 R=390.178mm, Nf=0.474 (lev.laminare), Hu=765.0mm

**SEKSIONI TIP 13**

Prog.12925-13250m.



**Section details**     Metric     Imperial

Manning's coefficient  
 Concrete (average)

Length in meters  
 m

Internal height  
 mm

Internal width  
 mm

Left bank width  
 mm

Right bank width  
 mm

Water flow rate  
 liter/sec

Drop in meters  
 m

**Results**

- Water flow rate
- Water depth
- Volume and weight
- Length expansion

Fluid cross section area <input type="text" value="0.392176"/> m <sup>2</sup>	Fluid velocity <input type="text" value="3.098"/> m/s
Wetted perimeter <input type="text" value="1658.988"/> mm	Fluid surface width <input type="text" value="1128.872"/> mm
Hydraulic radius <input type="text" value="236.395"/> mm	Froude number <input type="text" value="1.678"/> - rapid flow
Water depth <input type="text" value="428.872"/> mm	Slope ratio (angle) <input type="text" value="0.012868 (0.737°)"/>

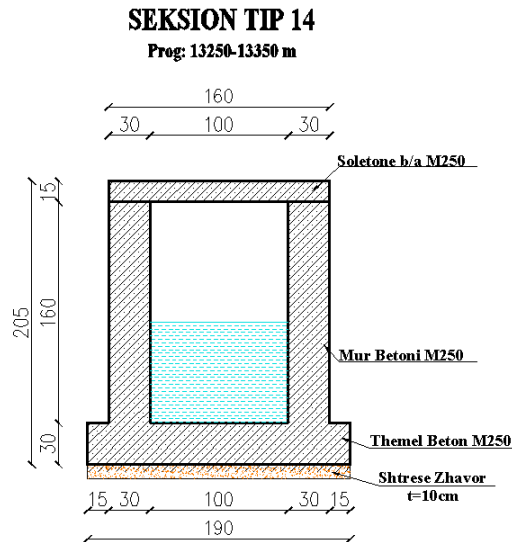
**Elementet Hidraulik:**

Q=1215l/sec, V=3.098m/s, WP=1658.988mm, Fs=1128.872mm  
 R=236.395mm, Nf=0.014 (lev.laminare), Hu=428.872mm



**SEKSIONI TIP 14**

Prog.13250-13350m.



**Section details**     Metric     Imperial

Manning's coefficient  
0.014 Concrete (average)

Length in meters  
100 m

Internal width  
\* 1000 mm

Internal height  
\* 1600 mm

Water flow rate  
1215 liter/sec

Drop in meters  
0.396 m

Increase  
Reduce

**Results**

- Water flow rate
- Water depth
- Volume and weight
- Length expansion

Fluid cross section area	0.632610 m <sup>2</sup>	Fluid velocity	1.921 m/s
Wetted perimeter	2265.220 mm	Fluid surface width	1000.000 mm
Hydraulic radius	279.271 mm	Froude number	0.771 - tranquil flow
Water depth	632.610 mm	Slope ratio (angle)	0.003960 (0.227°)

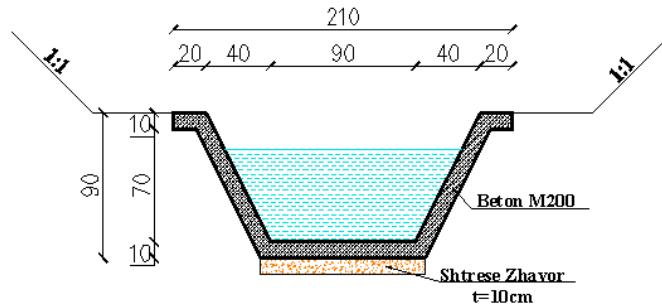
Calculate water depth

**Elementet Hidraulik:**

Q=1215l/sec, V=1.921m/s, WP=2265.22mm, Fs=1000mm  
R=279.271mm, Nf=0.771 (lev.laminare), Hu=632.61mm

**SEKSIONI TIP 15**  
 Prog.13350-15150m.

**SEKSIONI TIP 15**  
 Prog: 13350-15150 m



Section details     Metric     Imperial

Manning's coefficient  
 0.014 Concrete (average)

Length in meters  
 1800 m

Internal height  
 800 mm

Internal width  
 900 mm

Left bank width  
 400 mm

Right bank width  
 400 mm

Water flow rate  
 1215 liter/sec

Drop in meters  
 4.367 m

Increase  
 Reduce

Results

- Water flow rate
- Water depth
- Volume and weight
- Length expansion

Fluid cross section area 0.732046 m <sup>2</sup>	Fluid velocity 1.660 m/s
Wetted perimeter 2253.551 mm	Fluid surface width 1508.009 mm
Hydraulic radius 323.979 mm	Froude number 0.761 - tranquil flow
Water depth 608.009 mm	Slope ratio (angle) 0.002426 (0.139°)

Calculate water depth

**Elementet Hidraulik:**

Q=1215l/sec, V=1.66m/s, WP=2259.511mm, Fs=1508.009mm  
 R=323.979mm, Nf=0.761 (lev.laminare), Hu=608.009mm

**SEKSIONI TIP 16**

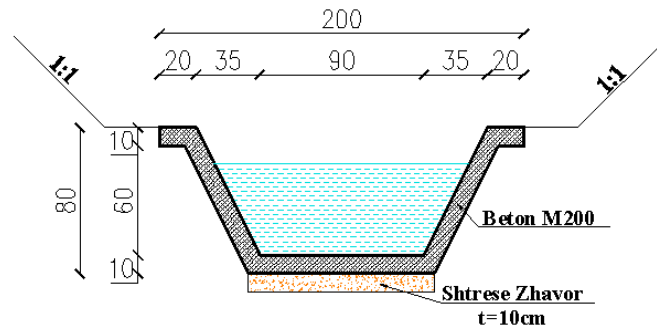
Prog.15150-15900m.

Prog.18225-18975m.

**SEKSIONI TIP 16**

Prog: 15150-15900 m

Prog: 18225-18975 m



**Section details**     Metric     Imperial

Manning's coefficient  
0.014 Concrete (average)

Length in meters  
750 m

Internal height  
\* 700 mm

Internal width  
\* 900 mm

Left bank width  
\* 350 mm

Right bank width  
\* 350 mm

Water flow rate  
1215 liter/sec

Drop in meters  
2.091 m

Increase  
Reduce

**Results**

- Water flow rate
- Water depth
- Volume and weight
- Length expansion

Fluid cross section area 0.695252 m <sup>2</sup>	Fluid velocity 1.748 m/s
Wetted perimeter 2204.543 mm	Fluid surface width 1483.409 mm
Hydraulic radius 315.372 mm	Froude number 0.815 - tranquil flow
Water depth 583.409 mm	Slope ratio (angle) 0.002788 (0.160°)

Calculate water depth

**ElementetHidraulik:**

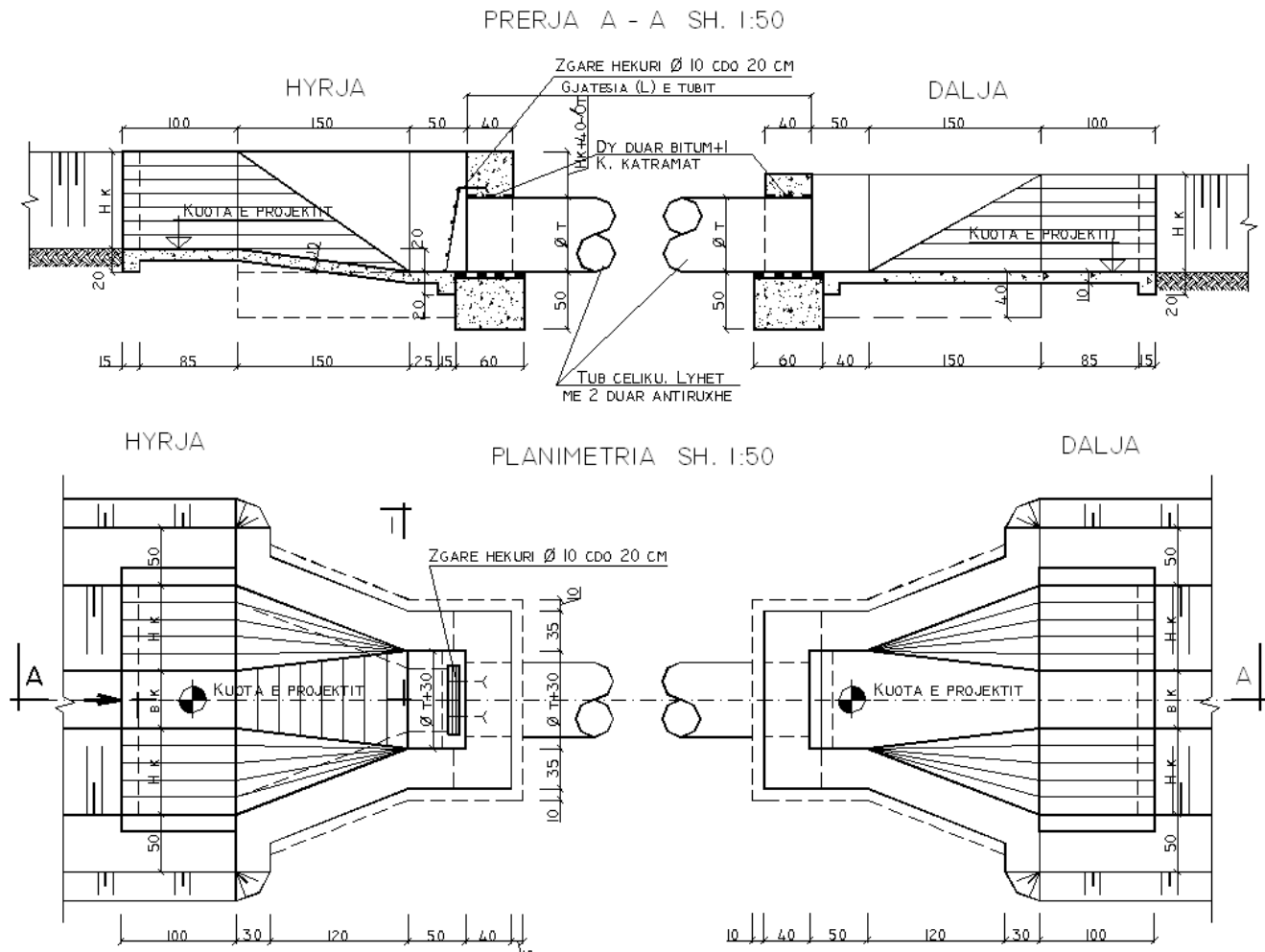
Q=1215l/sec, V=1.748m/s, WP=2204.543mm, Fs=1483.409mm

R=315.372mm, Nf=0.815 (lev.laminare), Hu=583.409mm

**6.LLOGARITJET E KALIMEVE ME TUBA CELIKU  $\Phi 812.8/7.92\text{mm}$ .**

Kalimet me tuba celiku aplikohen ne zonat e kalimeve te perrenjve,ato per arsye te diametrit te madh dhe peshes si rezultat i transportit jane realizuar kryesisht 6m me saldim cdo 2ml.

Tubat e Celikut do te perbehet nga Portali i hyrjes dhe i daljes duke bere rakordimet me kanalim.



Nr	Emertimi	Prog	L (m)
1	Tub Celiku F812.8/7.92mm	0+900	6
2	Tub Celiku F812.8/7.92mm	1+450	10
3	Tub Celiku F812.8/7.92mm	2+010	6
4	Tub Celiku F812.8/7.92mm	2+130	6
5	Tub Celiku F812.8/7.92mm	2+400	6
6	Tub Celiku F812.8/7.92mm	2+520	6
7	Tub Celiku F812.8/7.92mm	5+820	6
8	Tub Celiku F812.8/7.92mm	4+720	10
9	Tub Celiku F812.8/7.92mm	4+775	5
10	Tub Celiku F812.8/7.92mm	6+580	6
11	Tub Celiku F812.8/7.92mm	7+270	6
12	Tub Celiku F812.8/7.92mm	7+380	6
13	Tub Celiku F812.8/7.92mm	7+730	6
14	Tub Celiku F812.8/7.92mm	8+080	6

15	Tub Celiku F812.8/7.92mm	8+240	6
16	Tub Celiku F812.8/7.92mm	8+310	6
17	Tub Celiku F812.8/7.92mm	8+560	6
18	Tub Celiku F812.8/7.92mm	8+900	6
19	Tub Celiku F812.8/7.92mm	8+950	6
20	Tub Celiku F812.8/7.92mm	9+160	6
21	Tub Celiku F812.8/7.92mm	9+825	180
22	Tub Celiku F812.8/7.92mm	11+430	6
23	Tub Celiku F812.8/7.92mm	11+710	6
24	Tub Celiku F812.8/7.92mm	12+625	6
25	Tub Celiku F812.8/7.92mm	13+580	6
26	Tub Celiku F812.8/7.92mm	13+875	6
27	Tub Celiku F812.8/7.92mm	14+200	6
28	Tub Celiku F812.8/7.92mm	14+550	6
29	Tub Celiku F812.8/7.92mm	14+930	6
30	Tub Celiku F812.8/7.92mm	15+680	6
31	Tub Celiku F812.8/7.92mm	16+580	6
		<b>Shuma</b>	<b>367</b>

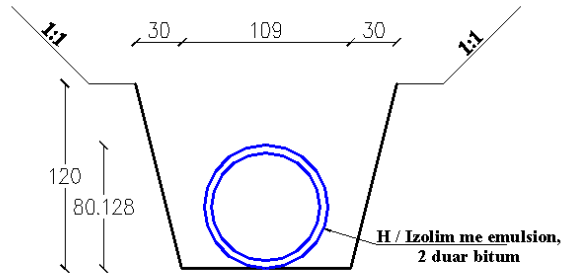
**Llogaritja Hidraulike per nje seksion Tub celiku  $\Phi 812.8/7.92mm$ .**

The image shows a software interface for hydraulic calculations. On the left, under 'Pipe details', the following parameters are set: Manning's coefficient is 0.012 Steel; Length in meters is 10 m; Internal diameter is 800 mm; Fluid depth (uniform flow) is 800 mm; and Drop in meters is 0.1 m. A 3D diagram of a pipe with water inside is shown. On the right, under 'Results', the following values are displayed: Fluid cross section area is 0.502655 m²; Fluid velocity is 2.850 m/s; Wetted perimeter is 2513.274 mm; Fluid surface width is 0.000 mm; Hydraulic radius is 200.000 mm; Froude number is 0.000 - tranquil flow; Water flow rate is 1432.700 liter/sec; and Slope ratio (angle) is 0.010000 (0.573°). A 'Calculate water flow rate' button is visible at the bottom of the results panel.

**7.LLOGARITJET E SIFONAVE ME TUBA ÇELIKU F1000/7.92mm**

Prog.9850-10050m.

**SEKSION TIP 11**  
**SIFON I RI TUB ÇELIKU**  
**F812.8/7.92mm**  
**Prog: 9850-10050 m**



**Pipe details**     Metric     Imperial

Manning's coefficient

Length in meters  
 m

Internal diameter  
 mm

Drop in meters  
 m

**Results**

- Water flow rate
- Water depth
- Volume and weight
- Length expansion

Fluid cross section area	Fluid velocity
0.518868 m <sup>2</sup>	2.433 m/s
Wetted perimeter	
2553.487 mm	
Hydraulic radius	
203.200 mm	
Water flow rate	
<input type="text" value="1262.510"/> liter/sec <input type="button" value="Max. Flow"/>	
Slope ratio (angle)	
<input type="button" value="Calculate water flow rate"/> <input type="text" value="0.007135 (0.409°)"/>	

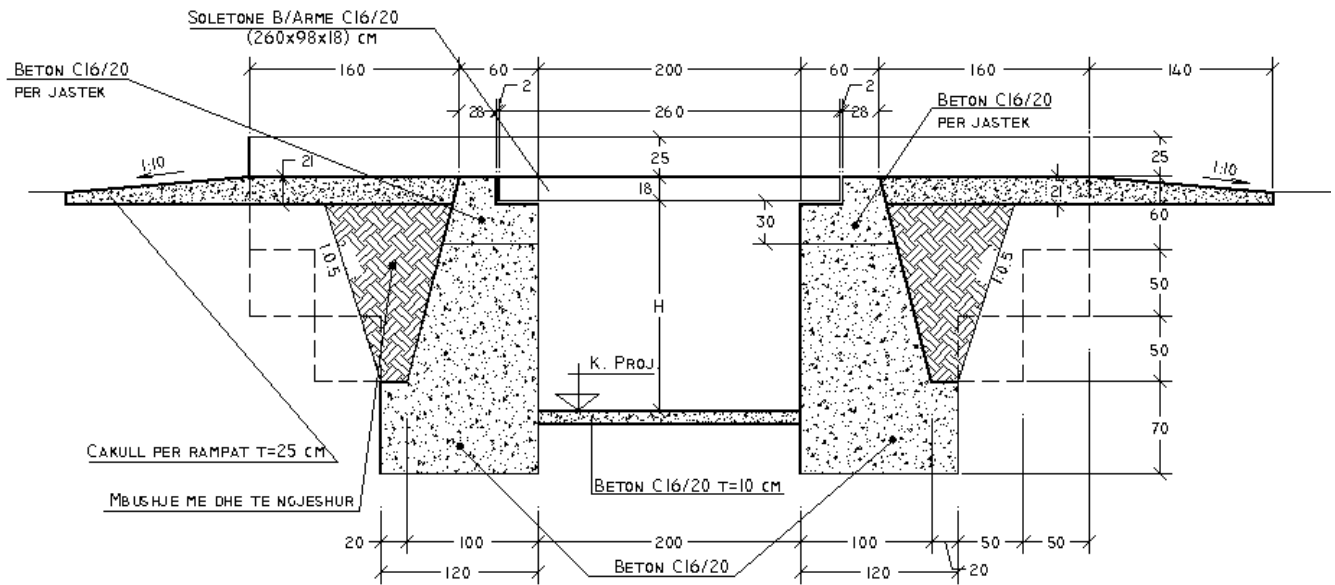
**Elementet Hidraulik:**

Q=1262.5l/sec, V=2.433m/s, WP=2553.487mm,  
 R=203.2mm, A=0.518868m<sup>2</sup>

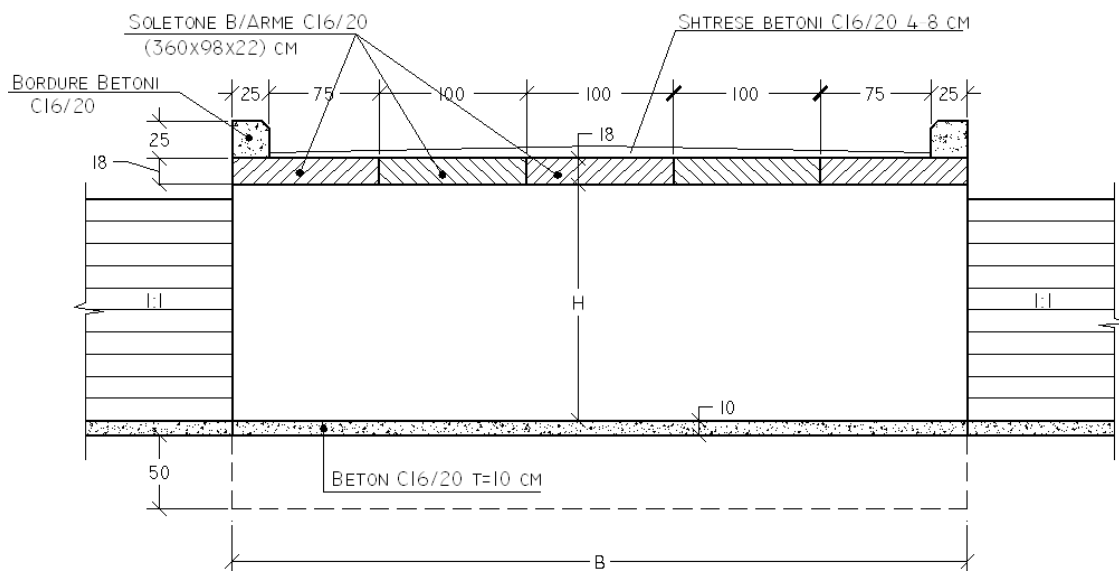
**8. URE KALIMET HD=2m,B=5m.**

Ne kete projekt parashikohet ndertimi i urave ne intersektimet e kanalit me rruget rurale. Percaktimi i pozicionit per vendosjen e ures, eshte bere ne perputhje me studimin hidrologjik si dhe ate gjologo-inxhinierik. Ura do te kete nje pozicion planimetrik, 90°, me shtratin e kanalit. Mbistruktura eshte e vendosur horizontalisht duke bere rakordimet perkatese me projektin e rruges. Gjeresia totale e ures eshte 5m, me nje kalim. Ura do te kete hapesire drite 2m. Nenstruktura e ures eshte realizuar me ane te jastekeve betony C16/20, nisur edhe nga rekomandimet gjeologo-inxhinierike. Mbeshtetjet anesore te ures jane realizuar me anen e ballnave betoni C16/20.

PRERJE A - A SHK. 1:50



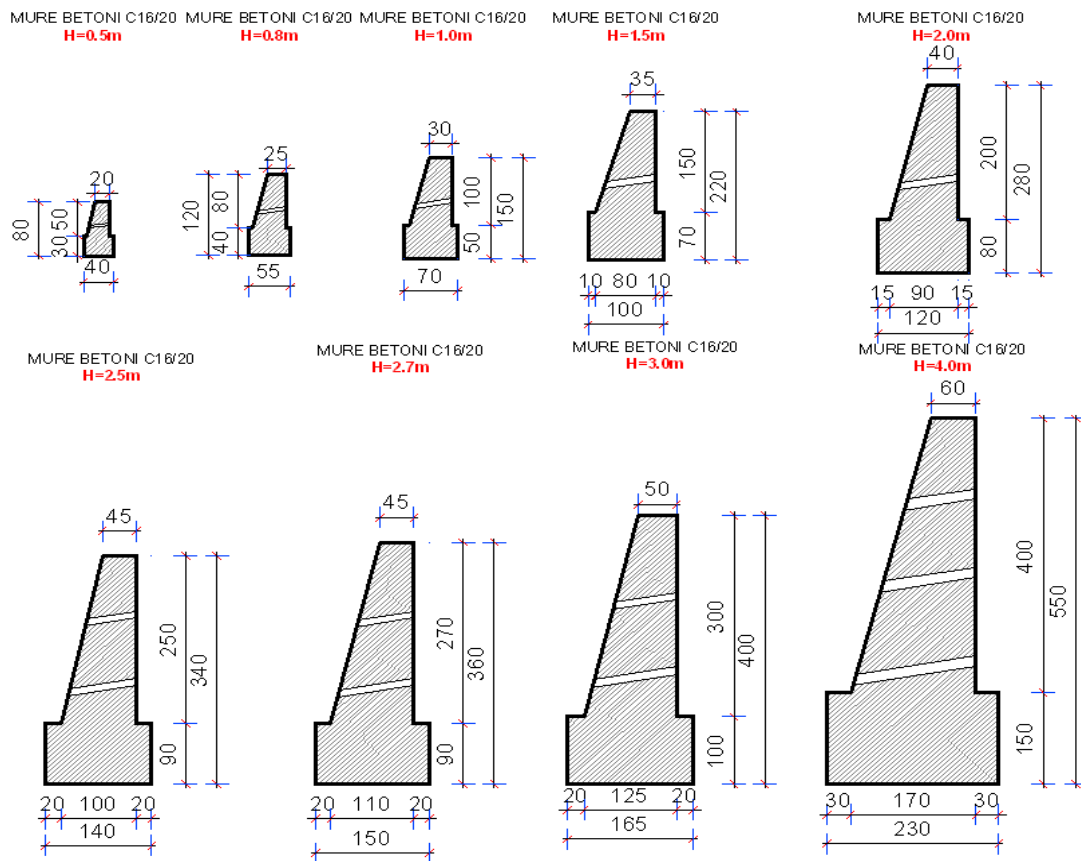
PRERJE B - B SHK. 1:50



Nr	Emertimi	Prog	Cope
1	Ure Auto Hd=2m,B=4m	1+025	1
2	Ure Auto Hd=2m,B=4m	7+540	1
3	Ure Auto Hd=2m,B=4m	10+230	1
4	Ure Auto Hd=2m,B=4m	10+480	1
5	Ure Auto Hd=2m,B=4m	12+880	1
6	Ure Auto Hd=2m,B=4m	13+130	1
7	Ure Auto Hd=2m,B=4m	17+450	1
8	Ure Auto Hd=2m,B=4m	18+000	1
9	Ure Auto Hd=2m,B=4m	18+375	1
		<b>Shuma</b>	<b>9</b>

### 9. MURET PRITES DHE MBAJTES

MURE TIP BETONI C16/20  
Sh-1:50





<b>Nr</b>	<b>Emertimi</b>	<b>Progresivi</b>	<b>L</b>	<b>Sip.Murit</b>	<b>Vol.Murit</b>
1	MUR BETONI C20/25, H=1.5,L=20m	4+425	20	1.55	31.0
2	MUR BETONI C20/25, H=1.5,L=20m	6+275	20	1.55	31.0
3	MUR BETONI C20/25, H=1.5,L=30m	8+675	30	1.55	46.5
4	MUR BETONI C20/25, H=2.0,L=55m	10+250	55	2.55	140.3
5	MUR BETONI C20/25, H=1.5,L=25m	11+700	25	1.55	38.8
				<b>Shuma</b>	<b>287.5</b>

**Punoi:**

**"ERALD-G" shpk**

**Ing. Gezim ISLAMI**

# RELACION TEKNIK

## MBI PUNIMET GJEODEZIKE DHE TOPOGRAFIKE

### OBJEKTI:

#### **I. KANALI VADITES, TUCEP, BULQIZE**

Punimet gjeodezike dhe topografike per Kanali Vadites “Tucep, Bulqize” u kryen mbi bazen e kerkesave teknike te pergjitheshme dhe specifike te parashikuara nga Investitori. Firma topografike “ERALD-G” Sh.p.k organizoi punen dhe zvilloi punimet ne baze te pervojës se perftuar ne punimet e meparshme te kesaj natyre. Para fillimit te punimeve topografike u siguruan materialet e nevojshme hartografike, gjeodezike si dhe paisjet perkatese.

Per te siguruar lidhjen gjeodezike unike te te gjithë projekteve nga firma u shfrytezuan te dhenat gjeodezike te rrjetit shteteror te triangulacionit dhe nivelimit.

Sistemi qe perdor Republika e Shqiperise eshte projektioni Gauuss Kryger-it me ellipsoid Krasovsky-n.

Rilevimi eshte bere ne sistemin nderkombetar me projektionin UTM me ellipsoid WGS84. Duke patur parasysh zonen dhe ritmin e zhvillimit qe ajo ka ,do te ishte me frytedhense nese do te perdorej dhe ky sistem .Me kete sistem mund te percaktohet lehtesisht kordinatat gjeodezike per cdo pike mbi siperfaqen tokesore nepermjet perdorimit te GPS.

Gjate rikonicionit ne terren u vendosen pikat e triangulacionit dhe markat e nivelimit ne pikat e fiksuara ne teren. Pikat e fiksuara ne teren u paisen me koordinata ne projektionin UTM ellipsoid WGS84 dhe kuota .Para fillimit te rilevimit u krye pernjohja e detajuar e terrenit, e cila sherbeu per percaktimin e sakte te metodikes se punes, menyren e ndertimit te rrjetit gjeodezik, poligonometrise se rilevimit, nivelimit teknik si dhe organizimit te punes.

Fiksimi ne terren i pikave te rilevimit u krye me kunjë hekuri me gjatesi 20 - 30 cm te futur toke. Ato jane vendosur ne vende te dukeshme dhe te pa levizeshme. Identiteti i tyre eshte fiksuar me boje te kuqe te shkruajtur ne afersi te pikes fikse ne vende te dukeshme nga rruga ekzistuese ose tereni. Ato jane vendosur ne vende te qendrushme, ne ane te rruges ose afer saj, kane pamje te ndersjellte, duke siguruar ne kete menyre lidhjen dhe vazhdimesine e punes nga faza e projektimit ne ate te zbatimit te tij.

Çdo pike e fiksuar ne terren ka numerin, koordinatat te saj, si dhe lartesine te perftuar nepermjet nivelimit gjeometrik e gjeodezik (shih planimetrite e objekteve ku gjenden koordinatat

tre dimensionale te pikave mbeshtetese). Keto te dhena sigurojne gjetjen e tyre me lehtesi ne terren.

Pikat fikse te terrenit jane te percaktuara ne planimetrine e veçante te projektit te KANALI VADITES, TUCEP, BULQIZE

Matjet u kryen me GPS TRIMBELL R6, Stacion Total te tipit Leica 307, Stacion Total te tipit Trimble M3 si dhe me nivele, te cilet teknikiisht siguron matjet e kendeve e largesive me saktesine e nevojshme per projektimin e rrugeve.



**Trimble M3**

**Leica 307**

**DINI LEVEL**



**T**



**TOPCON GPT 900 A**



**GPS TRIMBELL R6**



*Zhvillimi i Nivelimit Gjeometrik*

Per te siguruar kerkesat e larta teknike ne punimet rilevuse, u percaktua qe saktesia altimetrike e punimeve topografike te jete e larte dhe per kete qellim u zhvillua nivelim gjeometrik per pikat e poligonometrise ne te gjithë sektoret e rruges.

Nivelimi gjeometrik u krye me nivelen teknike te tipit Kern Level, me metoden e nivelimit teknik te dyfishte, duke matur çdo disnivel dy here, me dy vendosje instrumenti. Diferenca midis dy disniveleve te perftuar ne çdo stacion nuk u lejua me teper se 3 mm.

### ***Rilevimi***

Duke u mbeshtetur ne pikat e poligonometrise dhe te nivelimit gjeometrik u zhvillua rrjeti i matjeve topografike ne KANALIN VADITES, TUCEP, BULQIZE.

Eshte rilevuar rruga egzistuse, kanale, pusete, platforme betoni ,shtylla ndricimi ose tensioni,bunkere, tombino ,trotuare, ure, ndertesa, objekte te ndryshem, rruge dytesore etj. Objektet e pare ne teren jane hedhur ne relief te gjithë. Punimet topogjeodezike te kryera jane mbeshtetur ne shkallen e plote te pergatitjes profesionale, ne perdorimin e teknologjive bashkekohore per matjet fushore dhe perpunimin kompjuterik te te dhenave, per te plotesuar kerkesat teknike te parashtruara nga projektuesit. Çdo pike e mare ne teren ka koordinata tre dimensionale, te paraqitura ne projekt.

Perpunimi i materialit topografik ne zyre eshte bere me programin STRATO dhe LEONARDO,TGO, Autocad Land Development nga ku eshte perftuar rilevimi ne komunën Ishem.Ky relief sherbeu per hartimin e projektit te zbatimit me saktesine dhe cilesine e kerkuar ne termat e references nga investitori.

Ne materialin grafik te projektit jepet planimetria e fiksimeve dhe tabela e koordinatave te pikave te vendosura ne terren.

### ***Pershkrimi i punes ne terren.***

Per mbeshtetjen e punimeve fillimisht u krijuan 2 pika te forta te cilat jane te mjaftueshme per kryerjen e pikave detaje te rilevimit . Matja e ketyre pikave u kryen me metoden statike duke qendruar ne pike rreth 40 min ne intervalin 1 sek duke siguruar saktesi milimetrike te koordinatave te pikave.

Prania e marresit baze ne largesi te kufizuar siguron saktesi me te larte te matjeve ne interval kohe me te shkurter. Keshtu per pikat deri ne 1km nga marresi baze u perdor intervali 10 sek me matje per çdo sekonde ndersa per largesi me te madhe deri ne 2 km intervali 15 sek. Element kryesor ne matjen 'stop&go' eshte mos humbja e lidhjes se fazes bartese gje e cila prish zgjidhjen perfundimtare. Kjo mund te realizohet duke shmager futjen ne zona hije te sinjalit ose zona me reflektim te madh sinjali. Ne kete rast marresit TRIMBLE R6 japin nje sinjal i cili lajmeron matesin se duhet te rifilloje matjen nga nje pike matur paraprakisht, duke siguruar saktesine e kerkuar.Ne zonat me dendesi ndertimesh u perdor Stacioni Total pasi kishte peme dhe ndertime te larta te cilat nuk lejojne matjen e pikave detaje me GPS.

*Pershkrimifizik i zones.*

Zona qe eshte rilevuar shtrihet ne Fshatin Tucep. KANALI VADITES TUCEP qe u rilevua ndodhet ne nje gjendje shum te keqe si rezultat I mungeses se investimeve si dhe veprimit te agjenteve atmosferik.ne shum pjese te saje eshte e demtuar ku ne te gjith gjatesin e tij mungojne veprat e artit si ligje,mure ,tombino etj.

Punoi:

**"ERALD-G" SH.P.K**

**Ing.Gezim ISLAMI**