

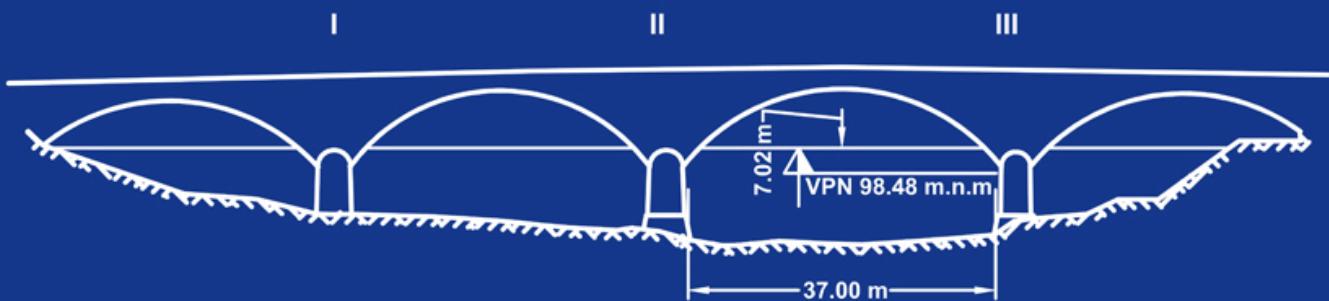


INTERNATIONAL SAVA RIVER BASIN COMMISSION

**MEDNARODNA KOMISIJA ZA SAVSKI BAZEN
INTERNATIONAL SAVA RIVER BASIN COMMISSION**

**ALBUM MOSTOV
NA REKI SAVI IN NJENIH PLOVNIH PRITOKIH**

**ALBUM OF BRIDGES
ON THE SAVA RIVER AND ITS NAVIGABLE TRIBUTARIES**



ZAGREB 2021

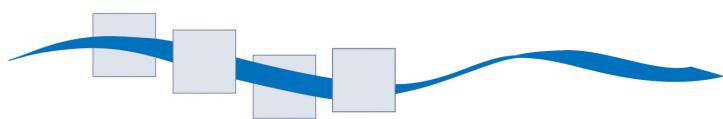
**MEDNARODNA KOMISIJA ZA SAVSKI BAZEN
ZAGREB**

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**ALBUM MOSTOV
NA REKI SAVI IN NJENIH PLOVNIH PRITOKIH**
(opis pogojev plovbe v plovbenih odprtinah mostov)

**ALBUM OF BRIDGES
ON THE SAVA RIVER AND ITS NAVIGABLE TRIBUTARIES**
(description of navigation conditions in bridge openings)

ZAGREB



2021

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Seznam pojmov:

(po vrstnem redu pojavljanja)

Pojem	Pomen
HEC RAS	Hydrologic Engineering Centers River Analysis System – softversko orodje za enodimenzionalno analizo rečnega toka
NPN (EN)	Nizki plovbeni nivo (ili vodostaj) reke s prosto gladino toka na nekem vodomeru ustreza nivoju vode s 95% trajanjem: $NPV = V_{95\%}$ [cm ali m.n.v.] a v katerikoli točki proste gladine toka reke ustreza nivoju vodne površine s pretokom s 95% trajanjem v enem letu. Določa se s statistično analizo trajanja nivoja vode v 25 letih opazovanja. (EN – etiage navigable).
VPN	Visoki plovni nivo (ali vodostaj) prostopretočne reke na nekem vodomeru odgovarja vodostaju 1%-tne trajnosti: $VPV = V1\%$ [cm ili m n.m.], a v katerekoli točko prostopretočne reke odgovarja nivoju vodne gladine od pretoka v trajanju 1% dana v letu ($Q1\%$). Določa se na temelju statističnega preračuna trajanja vodostaja iz 25 letnega razdobja opazovanja.

Predgovor

Tretje dopolnjena izdaja „Albumov mostov na reki Savi in njenih plovnih pritokih“ je rezultat velikega zanimanja strokovne javnosti in možnosti, da se v to izdajo vključijo mostovi, ki niso bili prikazani v prejšnjih izdanjih Poleg mostov na mednarodnem plovnom območju reke Save, ki je definiran v „Protokolu o režimu plovbe“ k Okvirnemu sporazumu o Savskem bazenu in mostov na reki Savi na odseku gorvodno od Siska do meje z republiko Slovenijo, na kateri velja državni režim plovbe, so v album prvkrat dodani tudi mostovi na delu reke Save v Republiki Sloveniji do jeza v Krškem. Ta izdaja je izdelana po obstoječi klasifikaciji plovbenega območja, ki je usklajen z novimi spremenjenimi vrednostmi referentnih plovnih nivojev na vodomernih postajah v Republiki Hrvaški. Ažurirana so tudi relevantne vrednosti referenčnih plovnih nivojev v profilih obstoječih mostov, na katere se nanašajo te spremembe.

Glede na *Okvirni sporazum* je strateški cilje Savske komisije usklajevanje sodelovanja med državami v Savskem bazenu na področju voda s ciljem, da se vzpostavijo pogoji za trajnostni razvoj v bazenu. *Okvirni sporazum*, ki združuje vse vidike upravljanja z vodnimi viri v bazenu, določa naslednje tri posamične cilje sodelovanja:

- vzpostavitev mednarodnega režima plovbe na reki Savi in njenih plovnih pritokih
- vzpostavitev trajnostnega upravljanja z vodami v bazenu ter
- obvladovanje nevarnostmi, kot npr. poplav, suše, leda in onesnaženja voda

Vzpostavitev mednarodnega režima plovbe na reki Savi, z istočasnim upoštevanjem ostalih dveh ciljev, vsebuje realizacijo niza aktivnosti, ki so vezane na obnovo in razvoj plovbane infrastrukture, izboljšanje varnosti plovbe in nadgradnjo tehničnih standardov za plovbo z vzpostavitvijo pogojev za razvoj plovbe na moderen in okolju prijazen način.

Do sedaj je Savska komisija izdala več dokumentov, ki se nanašajo na plovbo in sprejela več sklepov, s katerimi je le-te potrdila. Tako so dokumenti postali veljavni in obvezni za vse države v Savskem bazenu, kakor omogoča *Okvirni sporazum* Savski komisije na področju plovbe.

„Album mostov na reki Savi in njenih plovnih pritokih“ omogoča deležnikom v Savskem bazenu (ministrstvom, pristaniškim oblastem, pristaniškim pisarnam, upravljalcem plovil, mornarjem ter ostalim uporabnikom plovbenega območja), kakor tudi organizacijam in institucijam, ki so zainteresirana za razvoj v Savskem bazenu ter aktivnosti Savske komisije, vpogled v sistematizirane podatke o dimezijah konstrukcij mostov, razpon plovbenih odprtin in pogojev plovbe glede na karakteristične nivoje vode v profilih mostov. S tem pomembno prispeva k varnosti plovbe v Savskem bazenu.

Glavni prispevek k točnosti in kvaliteti „Albumu mostov“ je bil podan s strani Stalne strokovne skupine za plovbo, ki je podala vse potrebne podatke, še posebno s strani Direkcije za plovne poti (Beograd), Agencije za plovne poti (Vukovar) in Direkcije za zračni in pomorski promet (Ljubljana), pri čemer se jim iskreno zahvaljujem.

Upamo, da bo v bližnji prihodnosti uporabnost nove izdaje „Albumu mostov“ potrjena v praksi, kar bo spodbuda Savski komisiji k novim podvigom pri izdanju novih naklad.

Ta izdaja je usklajena z novimi spremembami v klasifikaciji plovne poti. V skladu s tem so obnovljene relevantne vrednosti že obstoječih mostov.

Zagreb, julij 2021

Dragan Zeljko,
Sekretar Savske komisije

1. Uvod

Prva izdaja Albuma mostov na reki Savi in njenih plovnih pritokih (2011) je podala pregled mostov in njihovih plovnih odprtin s pogoji plovbe pri karakterističnih vodostajih. Izdelana je bila v skladu s Strategijo implementacije Okvirnega sporazuma o Savskem bazenu, načrtom dela Mednarodne komisije za Savski bazen (ISRBC) za 2010 in programom dela Stalne strokovne skupine za plovbo za leto 2010.

Druga izdaja Albuma mostov na reki Savi in njenih plovnih pritokih (2017) je bila dopolnjena z mostovi na gorvodnem delu reke Save na Hrvaškem od Siska (rkm 594) do meje s Slovenijo (približno rkm 711,3). V tej izdaji je prvič podan prikaz mostov na reki Savi na odseku na katerem ne velja mednarodni temveč državni režim plovbe.

Poleg novozgrajenega mosta na lokaciji Svilaj, ta, tretja izdaja prvikrat vsebuje mostove na delu toka reke Save v Sloveniji od meje s Hrvaško do jeza v Krškem.

Album mostov na reki Savi in njenih plovnih pritokih je namenjena v prvi vrsti vsem udeležencem v plovbi po reki Savi, kakor tudi ostalim deležnikom, z namenom, da se s prikazom potrebnih informacij glede plovbe pod mostovi poveča varnost plovbe.

Stalna strokovna skupina za plovbo, še posebno pa Agencija za plovne poti iz Vukovara (Agencija), Direkcija za plovne poti iz Beograda (Direkcija), kakor tudi Uprava za pomorstvo iz Kopra (Direktorat) so podale izjemen prispevek k točnosti in ažurnosti Albuma mostov, predvsem z zagotavljanjem vseh potrebnih podatkov za izdelavo albuma.

2. Priprava Albuma mostov

2.1. Izvor podatkov

Podatke, ki so bili uporabljeni pri izdelavi že izdanih Albumov mostov, je zagotovila Stalna strokovna skupina za plovbo kakor tudi Agencija, Direkcija in Direktorat.

2.2. Format dostavljenih in ostalih podatkov

Podatki, ki so bili pridobljeni s strani Agencije, Direkcije in Direktorata so bili dostavljeni v različnih formatih:

- vektorski (Autodesk Autocad format – dwg);
- rasterski (različni rasterski formati – bmp, jpg, tiff);
- tabelarni (MS Excel).

Dostavljeni podatki so bili različne kvalitete in obsega. Z uporabo različnih orodij so bili preoblikovani v vektorsko obliko, in pripravljeni za tisk v pdf formatu.

2.3. Kvaliteta podatkov

Kvaliteta razpoložljivih podatkov je varirala od mosta do mosta v odvisnosti od izvora. Najkvalitetnejši podatki so del dokumentacije, ki se je koristila pri gradnji ali rekonstrukciji mostov. Glede na dostavljene podatke je mogoče za vse mostove določiti kvaliteto le-teh:

- Vektorski podatki za mostove vsebujejo informacije o kotah merjenih na terenu in kot taki predstavljajo nesporno informacijo, ki je pogosto v neskladju z informacijami dobljenih iz načrtov konstrukcij določnih mostov, kar je razumljivo, ker ni uporabljena projektna in/ali izvedbena dokumentacija. Posebno so karakteristični mostovi, katerih spodnji rob konstrukcije ni raven; temveč je približno določen z geometrijskimi elementi (loki ali elipse) različnih premerov. V takšnih primerih so merodajne snemane kote;
- nepopolni so podatki o mostovih v vzdolžnem preseku, za večina mostov so podane le informacije o položaju in številu podpornikov ter razponu med njimi v inundacijah, odnosno v glavnem koritu. Vseeno so te informacije s stališča uporabne vrednosti Albuma mostov ustrezne, ali ne s stališča celovitosti in natančnosti (številčenje podpornikov med katerimi se nahaja plovbena odprtina je v tem primeru netočno);

- pomanjkanje informacij o rečnem koritu v profilih mostov je odpravljeno z uporabo podatkov hidrografskega meritev reke Save od rkm 225 do rkm 0 v letih 2002, 2004 in od rkm 211 do rkm 0 s hidrografskega meritvami iz 2016 ter s pomočjo predhodno razvitega modela v HEC RAS za potrebe Analize Savskega bazena. Takšen pristop vsebuje določen del aproksimacije (profile mosta so pridobljeni z aproksimacijo ali uporabo profilov merjenih neposredno gorvodno ali dolvodno od mosta), kar je s stališča plovbe primerno;
- vektorizacija rasterskih podatkov je proces, ki sam po sebi vključuje določene nujne napake glede na razpoložljive podlage;
- uporabljene so nove vrednosti vodostajev relevantnih plovnih nivojev na vodomernih postajah na delu toka reke Save na Hrvaškem in v mejnem območju med Hrvaško in BiH, ki so bile določene v Študiji hidrološke analize s strani Witten+Boss, ki je bila izdelana v okviru dokumentacije Tehnična podpora za obnovo in izboljšanje plovnega območja reke Save v Republiki Hrvaški. Tako so vrednosti relevantnih plovnih nivojev v profilih mostov na navedenih delih toka določeni z linearno interpolacijo;
- podatki o karakterističnih vodostajih, ki vplivajo na dimenzijske plovenih odprtin bodo prav gotovo predmet stalne revizije, s čimer se bodo zagotovile ažurne informacije o predmetnih vrednostih.

2.4. Orodja

Pri izdelavi albuma mostov so uporabljeni različni licenčni računalniški programi. V največji meri so bili uporabljeni s strani ISRBC licencirani Autodesk AutoCAD 2008, ESRI Arc GIS 9.2 ter MS Excel in MS Word in različna orodja za pretvorbo formatov.

3. Vsebina Albuma

Album mostov na reki Savi in njenih pritokih je sestavljen iz tabelarnih in grafičnih prikazov informacij o mostovih ter njihovih plovenih odprtin, kakor tudi informacija o merodajnih vodomernih postajah z ustreznimi kotami in plovenimi nivoji.

3.1. Tabelarni pregled gabaritov plovenih odprtin mostov v odnosu na vzpostavljenou klasifikacijo vodnega območja reke Save

Na enem mestu tabelarni pregled podaja informacije o gabaritih plovenih odprtin mostov v odnosu na minimalne potrebne gabarite, ki so definirani s klasifikacijo vodnega območja reke Save. Jasno so prikazani mostovi in gabariti, ki ne izpolnjujejo pogojev definiranih s klasifikacijo.

3.2. Tabelarni pregled mostov in njihovih plovenih odprtin na reki Savi in njenih pritokih z gabariti pri karakterističnih vodostajih in informacije o merodajnih vodomernih postajah s kotami in plovnimi nivoji

Tabelarni pregled podaja na enem mestu pregled vseh pomembnih informacij s stališča plovbe za vse mostove na reki Savi in njenih pritokih. Sestavljen je iz 4 enot, ki so označene s številkami in barvami na sliki 1:

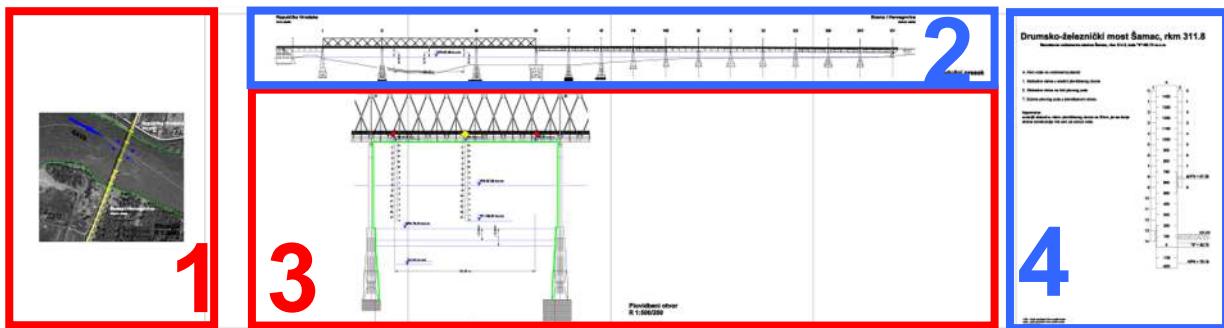
1. informacije, ki enoznačno označujejo most in njegov položaj izražen z rečnimi kilometri (redna številka v Albumu mostov, naziv reke, naziv mosta in stacionaža, respektivno);
2. zaporedno število podpornikov mosta (šteto od leve do desne obale), ki določa plovbeno odprtino mosta za gorvodno in dolvodno plovbo;
3. dimenzijske, ki definirajo gabarite plovene odprtine mosta (koristna širina pri nizkem plovenem nivoju (NPN) in visokem plovenem nivoju (VPN), koristna višina pri VPN in koristna višina pri koti "0" merodajne vodomerne postaje, kota spodnjega roba konstrukcije mosta, vse za plovila pri gorvodni in dolvodni plovbi, ter v sredini odprtine in na robu plovenega območja, respektivno);
4. informacije, ki definirajo merodajne vodomerne postaje in relevantne kote in plovene nivoje na njih (naziv merodajne vodomerne postaje, stacionaža, absolutna kota "0", ploveni nivoji (NPN in VPN) na vodomerni postaji v cm, absolutne kote plovenih nivojev

(NPN in VPN) na merodajni vodomerni postaji in v odprtini mosta in referenčnem nivoju v odnosu na katerega se izražajo absolutne kote, respektivno);

5. za mostove na delu gorvodno od Siska, ker velja mednarodni režim plovbe, niso potrjeni merodajni nizki plovbeni nivoji (NPN), zato so v posebnem tabelarnem pregledu podane informacije samo v odnosu na definirani visoki plovbeni nivo (VPN), kot tudi kote spodnjega roba konstrukcije mosta v sredini odprtine in na robu plovbenega območja, izpuščene pa so vrednosti koristne višine pri kot "0" merodajne vodomerne postaje;
6. Za mostove na delu toka v Sloveniji niso definirani relevantni plovbeni nivoji (VPN in NPN), temveč so dostavljene samo vrednosti vodostaja za stoletno vodo H_{100} . Zato so vrednosti gabaritov plovbenih odprtin teh mostov določeni v odnosu na H_{100}

Številka reke	Redno število	Vodometna postaja	Merodajni nivoi	Gabariti mostov na reki Savi in njenih pritokih												Merodajni nivoi	Plovbeni odprtini pri NPN	Plovbeni odprtini pri VPN	Plovbeni odprtini pri H ₁₀₀	Ukaz					
				Kot posredovanje				Kot posredovanje				Kot posredovanje													
				pr NPN	pr VPN	pr H ₁₀₀	pr NPN	pr VPN	pr H ₁₀₀	pr NPN	pr VPN	pr H ₁₀₀	pr NPN	pr VPN	pr H ₁₀₀										
4.2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23				
4.3	Sava	Drenovački Gubec	558.70	10.00	42.00	42.00	42.00	42.00	5.77	5.42	5.42	12.78	12.78	14.25	14.25	14.25	14.25	14.25	14.25	14.25	14.25				
4.4	Kap.	Drenovački Štok	5.40	10.00	42.25	42.25	42.25	42.25	5.81	5.45	5.45	12.51	12.51	13.71	13.71	13.71	13.71	13.71	13.71	13.71	13.71				
4.5	Kap.	Drenovački Štok	5.40	10.00	37.85	37.85	37.85	37.85	7.82	7.82	7.82	13.00	13.00	15.58	15.58	15.58	15.58	15.58	15.58	15.58	15.58				
4.6	Kap.	Drenovački Štok	2.10	10.00	21.55	21.55	21.55	21.55	3.21	3.21	3.21	10.22	10.22	11.22	11.22	11.22	11.22	11.22	11.22	11.22	11.22				
5.1	Sava	Drenovački Črešnja	387.70	10.00	37.85	37.85	37.85	37.85	7.35	7.35	7.35	14.55	14.55	14.55	14.55	14.55	14.55	14.55	14.55	14.55	14.55				
5.2	Sava	Drenovački Črešnja	547.20	10.00	42.00	42.00	42.00	42.00	5.10	5.10	5.10	14.32	14.32	14.32	14.32	14.32	14.32	14.32	14.32	14.32	14.32				
5.3	Sava	Drenovački Črešnja	545.10	10.00	518.85	518.85	518.85	518.85	7.25	7.25	7.25	15.44	15.44	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52				
6.1	Uba	Drenovački Javorca	8.15	10.00	19.70	19.70	19.70	19.70	3.25	3.25	3.25	14.44	14.44	14.44	14.44	14.44	14.44	14.44	14.44	14.44	14.44				
6.2	Sava	Drenovački Gradišče	464.80	10.00	32.00	32.00	32.00	32.00	8.25	8.25	8.25	14.25	14.25	14.25	14.25	14.25	14.25	14.25	14.25	14.25	14.25				
6.3	Sava	Drenovački Brod	374.20	10.00	184.95	184.95	184.95	184.95	7.25	7.25	7.25	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52				
6.4	Sava	Drenovački Brod	374.20	10.00	184.95	184.95	184.95	184.95	7.25	7.25	7.25	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52				
6.5	Sava	Drenovački Brod	374.20	10.00	184.95	184.95	184.95	184.95	7.25	7.25	7.25	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52				
6.6	Sava	Drenovački Brod	374.20	10.00	184.95	184.95	184.95	184.95	7.25	7.25	7.25	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52				
6.7	Sava	Drenovački Brod	374.20	10.00	184.95	184.95	184.95	184.95	7.25	7.25	7.25	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52				
6.8	Sava	Drenovački Brod	374.20	10.00	184.95	184.95	184.95	184.95	7.25	7.25	7.25	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52				
6.9	Sava	Drenovački Brod	374.20	10.00	184.95	184.95	184.95	184.95	7.25	7.25	7.25	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52				
6.10	Sava	Drenovački Brod	374.20	10.00	184.95	184.95	184.95	184.95	7.25	7.25	7.25	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52				
6.11	Sava	Drenovački Brod	374.20	10.00	184.95	184.95	184.95	184.95	7.25	7.25	7.25	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52				
6.12	Sava	Drenovački Brod	374.20	10.00	184.95	184.95	184.95	184.95	7.25	7.25	7.25	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52				
6.13	Sava	Drenovački Brod	374.20	10.00	184.95	184.95	184.95	184.95	7.25	7.25	7.25	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52				
6.14	Sava	Drenovački Brod	374.20	10.00	184.95	184.95	184.95	184.95	7.25	7.25	7.25	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52				
6.15	Sava	Drenovački Brod	374.20	10.00	184.95	184.95	184.95	184.95	7.25	7.25	7.25	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52				
6.16	Sava	Drenovački Brod	374.20	10.00	184.95	184.95	184.95	184.95	7.25	7.25	7.25	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52				
6.17	Sava	Drenovački Brod	374.20	10.00	184.95	184.95	184.95	184.95	7.25	7.25	7.25	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52				
6.18	Sava	Drenovački Brod	374.20	10.00	184.95	184.95	184.95	184.95	7.25	7.25	7.25	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52				
6.19	Sava	Drenovački Brod	374.20	10.00	184.95	184.95	184.95	184.95	7.25	7.25	7.25	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52				
6.20	Sava	Drenovački Brod	374.20	10.00	184.95	184.95	184.95	184.95	7.25	7.25	7.25	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52				
6.21	Sava	Drenovački Brod	374.20	10.00	184.95	184.95	184.95	184.95	7.25	7.25	7.25	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52				
6.22	Sava	Drenovački Brod	374.20	10.00	184.95	184.95	184.95	184.95	7.25	7.25	7.25	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52				
6.23	Sava	Drenovački Brod	374.20	10.00	184.95	184.95	184.95	184.95	7.25	7.25	7.25	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52				
6.24	Sava	Drenovački Brod	374.20	10.00	184.95	184.95	184.95	184.95	7.25	7.25	7.25	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52				
6.25	Sava	Drenovački Brod	374.20	10.00	184.95	184.95	184.95	184.95	7.25	7.25	7.25	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52				
6.26	Sava	Drenovački Brod	374.20	10.00	184.95	184.95	184.95	184.95	7.25	7.25	7.25	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52				
6.27	Sava	Drenovački Brod	374.20	10.00	184.95	184.95	184.95	184.95	7.25	7.25	7.25	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52				
6.28	Sava	Drenovački Brod	374.20	10.00	184.95	184.95	184.95	184.95	7.25	7.25	7.25	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52				
6.29	Sava	Drenovački Brod	374.20	10.00	184.95	184.95	184.95	184.95	7.25	7.25	7.25	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52				
6.30	Sava	Drenovački Brod	374.20	10.00	184.95	184.95	184.95	184.95	7.25	7.25	7.25	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52				
6.31	Sava	Drenovački Brod	374.20	10.00	184.95	184.95	184.95	184.95	7.25	7.25	7.25	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52				
6.32	Sava	Drenovački Brod	374.20	10.00	184.95	184.95	184.95	184.95	7.25	7.25	7.25	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52				
6.33	Sava	Drenovački Brod	374.20	10.00	184.95	184.95	184.95	184.95	7.25	7.25	7.25	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52				
6.34	Sava	Drenovački Brod	374.20	10.00	184.95	184.95	184.95	184.95	7.25	7.25	7.25	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52	15.52				
6.35	Sava	Drenovački Brod	374.20	10.00																					

4. naslovna stran s prikazom vodomerne letve s katere je mogoče dobiti informacije o razpoložljivi višini v plovbeni odprtini mosta (v sredini in na robovih) pri trenutnem vodostaju, kot tudi o razpoložljivi globini.



Slika 2: Grafični prikazi mostov in plovbenih odprtin v merilu 1:5000, 1:1000 in 1:500/200

4. Format izdaje

V praksi se album mostov objavlja v papirni obliku, tako, da je v vsakem trenutku dostopen koristniku. Izbrana oblika omogoča, da se v ustreznih merilih uporabniku prikažejo nujno potrebne informacije, a hkrati, da je album mostov priročen za uporabo. Z načinom vezave je zagotovljeno ažuriranje samo na mostovih, kjer so nastopile spremembe.

Ažurirani album mostov bo vsekakor na razpolago v digitalni obliki na spletni strani ISRBC v vsakem trenutku.

5. Zaključne opombe

Nova verzija Albuma mostov na reki Savi in njenih plovnih pritokih ima, prav tako kot prva in druga, določene pomanjkljivosti, predvsem zaradi kvalitete zbranih podatkov. Vendar je kvaliteta dovolj dobra, da se lahko zagotovijo informacije potrebne za plovbo skozi plovocene odprtine mostov.

Kvaliteta podatkov bi se lahko izboljšala z zbiranjem projektne dokumentacije mostov pri projektantih oz. izvajalcih. Posebno pomembna bi bilo kontinuirano preverjanje relevantnih plovbenih nivojev (NPN in VPN), kar bi omogočilo bolj točne podatke o razpoložljivih višinah in globinah v plovbenih odprtinah pri karakterističnih vodostajih.

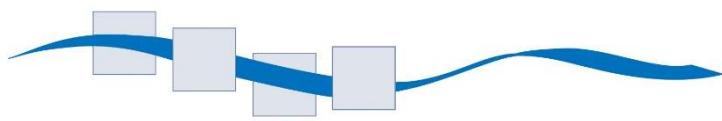
V tem smislu bosta ISRBC in stalna strokovna skupina naredili ustrezne korake.

INTERNATIONAL SAVA RIVER BASIN COMMISSION

**ALBUM OF BRIDGES
ON THE SAVA RIVER AND ITS NAVIGABLE TRIBUTARIES**
(description of navigation rules through the opening of the bridges)

ENG

ZAGREB



2021

INTERNATIONAL SAVA RIVER BASIN COMMISSION

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Glossary:

(In order of appearance)

Term	Meaning
HEC RAS	Hydrologic Engineering Centers River Analysis System – software tool for one-dimensional analysis of river flow
NPN (LNL)	Low navigable water level of freeflow river at some water gauge corresponds to water level of 95% duration: LNL = V95% [cm or m.a.s.l.] and in any point of freeflow river it corresponds to level of water surface with discharge of 95% duration in a year. It is defined from statistical analysis of water level duration taking into account 25 years of observation.
VPN (HNL)	High navigable water level of freeflow river at some water gauge corresponds to water level of 1% duration: HNL = V1% [cm or m.a.s.l.] and in any point of freeflow river it corresponds to level of water surface with discharge of 1% duration in a year. It is defined from statistical analysis of water level duration taking into account 25 years of observation.

Foreword

The third, updated edition of the "Album of bridges on the Sava River and its navigable tributaries" is the result of great interest of the professional public and the possibility to present in this edition the bridges that were not included in previously. In addition to the bridges on the international Sava River waterway, defined by the "Protocol on Navigation Regime" to the Framework Agreement on the Sava River Basin and the bridges on the Sava River on the section upstream from Sisak to the border with the Republic of Slovenia with the state navigation regime, this edition includes the bridges on section of the Sava River in the Republic of Slovenia up to the dam in Krško.

This edition, developed in line with the existing classification of the waterway, is harmonized with the new changes in the values of the reference water levels at water meter stations in the Republic of Croatia. Therefore, the updates of relevant values of reference water levels in profiles of existing bridges are made with regard to those changes.

According to the Framework Agreement, the strategic objective of the Sava Commission is coordination of cooperation among the Sava countries in the water sector, with the aim of providing conditions for sustainable development of the basin. The Framework Agreement, which integrates all aspects of water resources management in the basin, stipulates the following three particular objectives of cooperation:

- Establishment of the international navigation regime on the Sava river and its navigable tributaries;
- Establishment of sustainable water management in the basin, and
- Management of hazards, such as floods, droughts, ice and water pollution.

The establishment of the international navigation regime on the Sava river, while respecting the other stated objectives, includes the implementation of a series of activities related to the rehabilitation and development of waterway infrastructure, improvement of navigation safety and upgrade of the technical standards of navigation, thus providing the conditions for the navigation development in a modern and environmentally sustainable way.

To this end, the Sava Commission has so far developed a set of documents related to navigation and passed decisions on their adoption. Herewith, these documents entered into force and became obligatory for the Sava countries, given the legal capacity of the Sava Commission in the field of navigation, stipulated by the Framework Agreement.

"Album of Bridges on the Sava River and its Navigable Tributaries" aims to provide the respective stakeholders in the Sava river basin (relevant ministries, port authorities, port master offices, boatmasters, shippers, and other users of the waterway), as well as other organizations and institutions, interested in developments in the Sava river basin and activities of the Sava Commission, with the systematized data on dimensions of the bridge constructions, navigation bridge spans and navigation conditions corresponding to the characteristic water levels at the bridge cross-sections, hence additionally contributing to navigation safety in the Sava River Basin.

A key contribution to the accuracy and quality of the "Album of Bridges", through submission of all necessary data, has been made by the Permanent Expert Group for Navigation of the Sava Commission, and especially by the Directorate for inland waterways (Belgrade), the Agency for inland waterways (Vukovar) and Directorate for air and maritime traffic (Ljubljana), whose contribution is highly recognized.

We hope that the practical usability of the new edition of the "Album of Bridges" will also be confirmed in near future, which would further motivate the Sava Commission to invest additional efforts in preparation of similar publications.

Zagreb, July 2021

Dragan Zeljko,
Secretary of the Sava Commission

1. Introduction

First edition of the Album of bridges on the Sava River and its navigable tributaries provided the overview of the bridges and their navigable openings with navigation conditions at characteristic water levels. It was made in accordance with the Strategy for implementation of the Framework Agreement on the Sava River Basin, and in line with the Work Plans for the year 2010 of the International Commission for the Sava River Basin and Permanent expert group for navigation.

The second issue of the Album of bridges on the Sava River and its navigable tributaries (2017), was augmented with bridges on the upstream section of the Sava River from the town of Sisak to the border between Croatia and Slovenia (rkm 711,3). That edition, for the first time, provided the overview of the bridges on the section with the state regime of river navigation, not only the sections with international regime of river navigation.

In addition to the newly built bridge in Svilaj, this, third edition, for the first time contains bridges on part of the Sava River in Slovenia, from the border with Hrvatska to the dam in Krško.

It is primarily made for all participants in the navigation on the Sava River, as well as for other stakeholders, in order to contribute to the safety of navigation by providing necessary information for navigation through navigable openings of the bridges.

Permanent Expert Group for navigation, especially the Agency for Inland Waterways from Vukovar (Agency), Directorate for Inland Waterways in Belgrade (Directorate), as well as Directorate for air and maritime traffic from Ljubljana (Directorate), have made a huge contribution to the accuracy and the update of the Album of bridges, primarily through the provision of all necessary data for its preparation.

2. Preparation of the Album of bridges

2.1. Source of data

The data used for preparation of the this and previous editions of Album of bridges were provided through Permanent expert group for navigation. They were submitted by the Agency for Inland Waterways from Vukovar, Directorate of Inland Waterways from Belgrade and Directorate for air and maritime traffic from Ljubljana.

2.2. Format and other information submitted

Data obtained by the Agency and the Directorates are provided in various forms:

- vector form (Autodesk Autocad format - dwg);
- raster form (different raster formats - bmp, jpg, tiff);
- tabular form (MS Excel).

Submitted data are of varying quality and size and are reduced by means of different tools for vector form by which they were prepared for printing in .pdf format.

2.3. Quality of data

The quality of available data varied from bridge to bridge, depending on the source. The highest quality data are part of the technical documentation used for the construction or reconstruction of the bridges. With regard to the submitted data, the following conclusions on the quality of the same can be drawn for all bridges:

- vector data for bridges contain information on the elevations recorded through field measurements and as such represent unrivaled information, which is often at odds with the information obtained by using the drawings of the same bridges. It is understandable because the project documentations and/or as-drawing designs were not used. It applies particularly to the bridges whose bottom line construction is not flat, so it is approximated by geometrical figures (arcs or ellipses) of inadequate diameters. In such cases recorded elevations are relevant;

- data on bridges in longitudinal section are incomplete. In fact, for the majority of bridges was given only the information on navigable openings and their immediate vicinity in the minor bed actually, without information on the position and number of pillars and the span between them in the inundation, i.e. in the major river bed. With concern to its usability, the Album of bridges still provides enough information, but not in terms of completeness, and to some degree of accuracy (numbering of pillars between which is navigable opening is incorrect in this case);
- lack of information on the river channel in bridge profiles. It was overcome by using data from the hydrographic surveys of the Sava River from rkm 225 to rkm 0 performed in 2002, 2004 and from rkm 211 to rkm 0 performed in 2016, as well as with the help of previous models developed by HEC-RAS for the purpose of the Analysis of the Sava River Basin. This approach has approximation of certain degree (bridge profiles were obtained by approximating or using the profiles recorded immediately upstream or downstream of the bridge), but in terms of navigation it is quite acceptable;
- vectorization of raster data is a process that in itself brings about a certain error, necessary in terms of available basic data;
- new values of relevant navigable levels at water gauges on the part of the Sava River in Croatia and the bordering section between Croatia and Bosnia and Herzegovina, were defined in the Hydrological Analysis Study developed by Witteveen & Boss, within the documentation Technical Support for Navigation Restoration and Improvement of the Sava River in the Republic of Croatia. Therefore, the values of the relevant navigable levels in the profiles of the bridges on the part concerned, were determined by linear interpolation.
- data on characteristic water levels, which define the vertical and horizontal clearances of navigable openings, certainly will be subject of revision in order to provide as much as possible updated information on values concerned.

2.4. Tools for the preparation

In preparation of the Album of bridges were used different software tools. For the most part was used software licensed by ISRBC such as Autodesk AutoCAD 2008, ESRI Arc GIS 9.2, MS Excel and MS Word, as well as various tools for format conversion.

3. Content of the Album

Album of bridges on the Sava River and its tributaries consists of tabular and graphical displays of information on bridges, their navigable openings, as well as information on relevant water meter stations and corresponding elevations and navigable levels.

3.1. Tabular overview of dimensions of the navigable openings of bridges in relation to the established classification of the Sava River Waterway

Tabular overview in one place gives information about the dimensions of navigable openings of bridges with regard to the minimum required dimensions defined by the classification of the Sava River waterway. They clearly point out bridges and dimensions that do not meet the requirements defined by the classification.

3.2. Tabular overview of bridges and their navigable openings on the Sava River and its tributaries with the clearance related to characteristic water levels as well as information on relevant water meter stations and corresponding elevations and navigable levels.

Tabular overview in one place provides an overview of all important information in terms of navigation for all bridges on the Sava River and its tributaries. It consists of four sections that are numbered and marked with colors in Figure 1:

1. information that unambiguously define the bridge and its location marked by river kilometers (serial number in the Album of bridges, river name, the name of the bridge and chainage, respectively);

2. number of the pillars of the bridge (counting from the left to the right bank) which determine the opening of the bridge for upstream and downstream navigation;
3. dimensions that define the clearance of the navigable bridge opening (horizontal clearance related to the low navigable level (LNL) and the high navigable level (HNL), vertical clearance related to HNL and vertical clearance related to the "zero" level of the relevant water meter station, the elevation of the bottom edge of the bridge, for all vessels navigating upstream and downstream, as well as the bottom edge of the bridge in the opening and at the edge of the fairway, respectively);
4. information that define the relevant water meter stations, as well as relevant elevations and navigable water levels (name of the relevant water meter station, chainage, the absolute elevation of the "zero" level; navigable levels (LNL and HNL) at the water meter station expressed in cm, the absolute elevations of navigable levels (LNL and HNL) at the relevant water meter station and in the opening, as well as reference level in relation to whom the absolute dimensions are expressed, respectively);
5. relevant low navigable levels (LNL) have not been determined for the bridges on the section upstream from Sisak yet. Actually they were not defined for the section without international regime of river navigation. Therefore, for such bridges, the information are given in a separate tabular overview only in relation to defined high navigable level (HNL) along with the elevation of the bottom edge of the bridge in the middle of the opening and the edge of the fairway, but relevant data related to the "zero" level of the relevant water meter station were left out;
6. for bridges on the in Slovenia, the relevant navigable levels (LNL and HNL) have not been defined yet. Only water level values for the 100-year waters H₁₀₀ were submitted. Therefore, the clearance values of the navigable openings of these bridges were determined in relation to H₁₀₀.

The table provides a detailed overview of bridge openings across the Sava River network. Key columns include:

- Geobraščenje mostov:** General bridge overview.
- Konstrukcija:** Construction type.
- Konstrukcija po VHM:** Construction according to VHM.
- Konstrukcija po "Z" merodavniku:** Construction according to "Z" reference level.
- Katoljka za vodootpornošči most:** Culvert for water infiltration.
- Merodavnik:** Reference level.
- Stacionarni beli "Z" merodavnik:** Stationary white "Z" reference level.
- Predstavljena vodna ravnina:** Represented water level.
- Razpoložljiva voda na "Z" merodavniku:** Available water at "Z" reference level.
- Udarev:** Impact.

Figure 1: Tabular overview of bridges and their navigable openings on the Sava River and its tributaries with their horizontal and vertical clearances related to characteristic water levels and information on the relevant water meter stations and corresponding elevations and navigable levels

3.3. Graphical views of navigational bridges and navigable openings in scale 1:5000, 1:1000 and 1:500 / 200

Graphical views of bridges and their navigable openings provide information relevant for navigation through the bridge openings in different scales and views, and also make it possible

to easily obtain information about the available vertical clearances during the current water level on corresponding water meter station.

Graphical presentations are composed of 4 sections that are marked with numbers and colors shown in the example of road-railway bridge in Šamac:

1. situation R 1:5000, showing the disposition of the bridge in the plan, with numbered pillars of the bridge, marked direction of the flow and navigable opening (navigable openings - in case the upstream and downstream navigation are performed in different openings);
2. longitudinal section of the bridge R 1:1000, provides information on the available horizontal clearance of the navigable opening related to the HNL, marks of the banks and numbers of the pillars, always shown in the direction of the downstream navigation;
3. longitudinal section of navigable opening R 1:500 / 200, displays detailed information on available clearance of the navigable opening and dimensions of the fairway related to characteristic water levels;
4. front page showing the water meter rods which allow obtaining the information on the available horizontal clearance of the navigable opening of the bridge (in the middle and at the edges) related to the current water level, as well as information on the available depth.

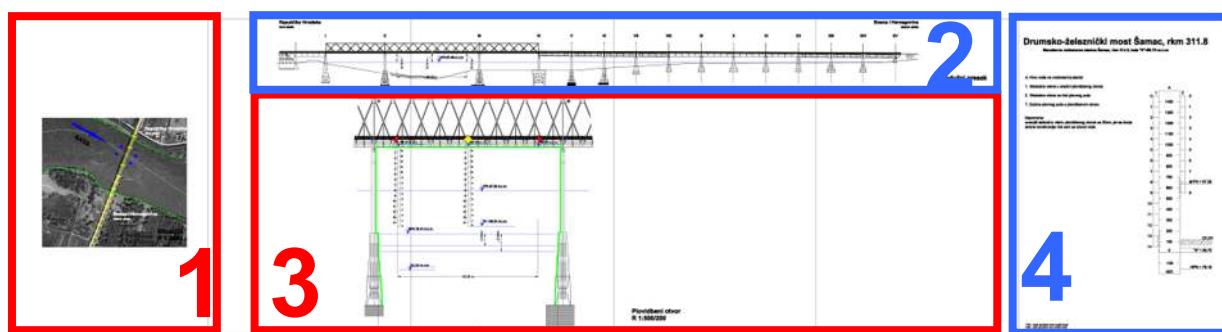


Figure 2: Graphical views of navigational openings of the bridges in scale 1:5000, 1:1000 and 1:500 / 200

4. Publication Format

It is a practice that certainly every Album of bridges is issued in paper form, so that at any time it could be available to the user. The chosen format allows overview of necessary information to users, in adequate scales, while at the same time the album of bridges does not require too much space for manipulation. The method of binding ensures that the update is performed only for those bridges where the changes happened.

The updated Album of bridges will certainly be available in digital form on a Web site of ISRBC at any time.

5. Concluding Remarks

New edition of the Album of bridges on the Sava River and its tributaries, as well as the first ever one, certainly have some drawbacks, primarily due to the quality of data collected. However, the quality is quite sufficient to provide the information necessary for navigation through navigable bridge openings.

Data quality could be improved by collecting technical documentation of bridges from designers / contractors.

In particular, the continuous check of relevant navigable levels (LNL and HNL) would provide accurate information on the available vertical clearances and depths in navigable openings related to the characteristic water levels.

ISRBC and Permanent Expert Group for navigation in this regard will take appropriate steps.

**Tabelarni pregled gabaritov plovbenih odprtin mostov
v odnosu na vzpostavljeno klasifikacijo na vodnem območju reke Save**

**Overview of dimensions of the bridge openings for navigation
in comparison to defined classification on the Sava River fairway**

Br. No.	Reka River	Naziv mosta Bridge Name	Stacionaža mosta (rkm) Bridge Chainage (rkm)	Gabariti plovbenih odprtine Dimension of the Bridge Opening		Gabariti zahtevani po klasifikaciji Height Required by Classification
				Višina pri VPN (m) Height at HNL (m)	Širina pri VPN (m) Width at HNL (m)	
1.	Sava Sava	Cestni most Galdovo Road bridge Galdovo	593.70	5.39	49.00	4
2.	Sava Sava	Cestni most Crmac Road bridge Crmac	587.70	6.67	67.80	4
3.	Sava Sava	Železniški most Jasenovac Railway bridge Jasenovac	517.20	6.17	41.00*	4
4.	Sava Sava	Cestni most Jasenovac Road bridge Jasenovac	515.60	5.35	110.00	4
5.	Sava Sava	Cestni most Gradiška Road bridge Gradiška	466.10	7.36	89.00	4
6.	Sava Sava	Proektovod Brod Pipeline bridge Brod	374.80	16.47	104.30	4
7.	Sava Sava	Cestni most Brod Road bridge Brod	371.50	7.64	66.30	4
8.	Sava Sava	Cestni most Svilaj Road bridge Svilaj	329.10	8.56	91.00	4
9.	Sava Sava	Cestno-železniški most Šamac Road-railway bridge Šamac	311.80	8.16	65.30	4
10.	Sava Sava	Cestni most Županja Road bridge Županja	261.60	7.85	117.80	7
11.	Sava Sava	Cestni most Gunja Road bridge Gunja	228.80	7.62	47.50	7

Br. No.	Reka River	Naziv mosta Bridge Name	Stacionaža mosta (rkm) Bridge Chainage (rkm)	Gabariti plovbenе odprtine Dimension of the Bridge Opening		Gabariti zahtevani po klasifikaciji Height Required by Classification	
				Višina pri VPN (m) Height at HNL (m)	Širina pri VPN (m) Width at HNL (m)		
12.	Sava Sava	Železniški most Gunja Railway bridge Gunja	226.80	9.58	120.00	7	45
13.	Sava Sava	Cestno-železniški most Rača Road-railway bridge Rača	183.31	-	140.00	4	45
14.	Sava Sava	Most za pešči Sremska Mitrovica Pedestrian bridge Sremska Mitrovica	139.24	8.37	100.00	7	45
15.	Sava Sava	Cestni most Sremska Mitrovica Road bridge Sremska Mitrovica	136.60	9.30	150.00	7	45
16.	Sava Sava	Železniški most Šabac Railway bridge Šabac	106.96	6.46*	75.00	7	45
17.	Sava Sava	Cestni most Šabac Road bridge Šabac	104.53	9.42	80.00	7	45
18.	Sava Sava	Cestno-toplovodni most Obrenovac Road-pipeline bridge Obrenovac	42.53	11.01	1 x 80.00 1 x 120.00	7	55
19.	Sava Sava	Železniški most Ostružnica Railway bridge Ostružnica	15.43	8.41	2x75.00	7	55
20.	Sava Sava	Cestni most Ostružnica Road bridge Ostružnica	15.00	10.56	150.00	7	55
21.	Sava Sava	Cestni most Beograd – Ada Ciganlija Road bridge Belgrade – Ada Ciganlija	3.80	15.06	150.00	7	55
22.	Sava Sava	Novi železniški most Beograd New railway bridge Belgrade	3.00	16.06	120.00	7	55
23.	Sava Sava	Stari železniški most Beograd Old railway bridge Belgrade	2.73	6.96*	90.00	7	55
24.	Sava Sava	Cestni most "Gazela" Beograd Road bridge "Gazela" Belgrade	2.52	10.87	200.00	7	55

Br. No.	Reka River	Naziv mosta Bridge Name	Stacionaža mosta (rkm) Bridge Chainage (rkm)	Gabariti plovbenе odprtine Dimension of the Bridge Opening		Gabariti zahtevani po klasifikaciji Height Required by Classification
				Višina pri VPN (m) Height at HNL (m)	Širina pri VPN (m) Width at HNL (m)	
25.	Sava Sava	Cestno-tramvajski most Beograd Road-tramway bridge Belgrade	1.43	10.27	90.00	7
26.	Sava Sava	Cestni most Beograd "Brankov most" Road bridge Belgrade "Branko's bridge"	1.00	9.94	100.00	7
27.	Kupa Kupa	Cestni most novi Sisak Road bridge new Sisak	4.68	8.60	34.25*	3
28.	Kupa Kupa	Cestni most stari Sisak Road bridge old Sisak	3.40	0*	34.31*	3
29.	Kupa Kupa	Železnički most Sisak Railway bridge Sisak	2.10	7.32	21.50*	3
30.	Una Una	Cestni most Jasenovac Road bridge Jasenovac	0.05	6.18	32.50*	3
31.	Kolubara Kolubara	Cestni most Obrenovac Road bridge Obrenovac	2.96	2.63*	14.00*	3
32.	Sava Sava	Cestni most Brežice Road bridge Brežice	719.40	0.15**	34.31**	3
33.	Sava Sava	Cestni most Čadež Road bridge Čadež	718.40	2.09**	27,90**	3
34.	Sava Sava	Cestni most Zaprešić Road bridge Zaprešić	698.60	5.23	79.62	3
35.	Sava Sava	Cestni most Podsusied Road bridge Podsusied	696.60	5.31	33.63	3
36.	Sava Sava	Železnički most Jankomir Railway bridge Jankomir	693.60	5.85	36.90	3
37.	Sava Sava	Cestni most Jadranski Road bridge Jadranski	684.80	5.00	55.83	3

Br. No.	Reka River	Naziv mosta Bridge Name	Stacionaža mosta (rkm) Bridge Chainage (rkm)	Gabariti plovbe odprtine Dimension of the Bridge Opening		Gabariti zahtevani po klasifikaciji Height Required by Classification
				Vičina pri VPN (m) Height at HNL (m)	Širina pri VPN (m) Width at HNL (m)	
38.	Sava Sava	Most za peščci Savski Pedestrian bridge Savski	684.60	3.15	51.37	3 35
39.	Sava Sava	Železniški most Sava Zeleni Railway bridge Sava Zeleni	684.40	7.79	78.25	3 35
40.	Sava Sava	Cestni most Sloboda Road bridge Sloboda	682.80	4.12	55.77	3 35
41.	Sava Sava	Cestni most Most mladosti Road bridge Most mladosti	680.70	5.93	61.10	3 35
42.	Sava Sava	Železniški most Mičevac Railway bridge Mičevac	676.30	9.04	58.88	3 35
43.	Sava Sava	Cestni most Domovinski most Road bridge Domovinski most	673.70	9.41	86.34	3 35
44.	Sava Sava	Cestni most Ivana Reka Road bridge Ivana reka	668.80	11.38	36.57	3 35
45.	Sava Sava	Cestni most Martinska Ves Road bridge Martinska Ves	622.80	3.92	99.57	3 45

* Gabarit plovbe odprtine ne izpoljuje gabarit zahtevan po klasifikaciji

* Dimension of the bridge opening does not satisfies dimension required by the classification

** Vrednosti gabarita plovbe odprtine so dane za vrednost vodostaja stoletne vode H100

** Dimension of the Bridge Opening are given with reference to the values of water level of 100 year recurrence period H₁₀₀

**Tabelarni pregled gabaritov plovbenih odprtin mostov
v odnosu na vzpostavljeno klasifikacijo na vodnem območju reke Save**

**Overview of dimensions of the bridge openings for navigation
in comparison to defined classification on the Sava River fairway**

Br. No.	Reka River	Naziv mosta Bridge Name	Stacionaža mosta (rkm) Bridge Chainage (rkm)	Gabariti plovbene odprtine Dimension of the Bridge Opening		Gabariti zahtevani po klasifikaciji Height Required by Classification	
				Višina pri VPN (m) Height at HNL (m)	Širina pri VPN (m) Width at HNL (m)	Višina pri VPN (m) Height at HNL (m)	Širina pri VPN (m) Width at HNL (m)
1.	Sava Sava	Cestni most Galdovo Road bridge Galdovo	593.70	5.39	49.00	4	45
2.	Sava Sava	Cestni most Crnac Road bridge Crnac	587.70	6.67	67.80	4	45
3.	Sava Sava	Železniški most Jasenovac Railway bridge Jasenovac	517.20	6.17	41.00*	4	45
4.	Sava Sava	Cestni most Jasenovac Road bridge Jasenovac	515.60	5.35	110.00	4	45
5.	Sava Sava	Cestni most Gradiška Road bridge Gradiška	466.10	7.36	89.00	4	45
6.	Sava Sava	Produktovod Brod Pipeline bridge Brod	374.80	16.47	104.30	4	45
7.	Sava Sava	Cestni most Brod Road bridge Brod	371.50	7.64	66.30	4	45
8.	Sava Sava	Cestni most Svilaj Road bridge Svilaj	329.10	8.56	91.00	4	45
9.	Sava Sava	Cestno-železniški most Šamac Road-railway bridge Šamac	311.80	8.16	65.30	4	45
10.	Sava Sava	Cestni most Županja Road bridge Županja	261.60	7.85	117.80	7	45
11.	Sava Sava	Cestni most Gunja Road bridge Gunja	228.80	7.62	47.50	7	45

Br. No.	Reka River	Naziv mosta Bridge Name	Stacionaža mosta (rkm) Bridge Chainage (rkm)	Gabariti plovbe odprtine Dimension of the Bridge Opening		Gabariti zahtevani po klasifikaciji Height Required by Classification	
				Višina pri VPN (m) Height at HNL (m)	Širina pri VPN (m) Width at HNL (m)	Višina pri VPN (m) Height at HNL (m)	Širina pri VPN (m) Width at HNL (m)
12.	Sava Sava	Železniški most Gunja Railway bridge Gunja	226.80	9.58	120.00	7	45
13.	Sava Sava	Cestno-železniški most Rača Road-railway bridge Rača	183.31	-	140.00	4	45
14.	Sava Sava	Most za pešci Sremska Mitrovica Pedestrian bridge Sremska Mitrovica	139.24	8.37	100.00	7	45
15.	Sava Sava	Cestni most Sremska Mitrovica Road bridge Sremska Mitrovica	136.60	9.30	150.00	7	45
16.	Sava Sava	Železniški most Šabac Railway bridge Šabac	106.96	6.46*	75.00	7	45
17.	Sava Sava	Cestni most Šabac Road bridge Šabac	104.53	9.42	80.00	7	45
18.	Sava Sava	Cestno-toplovodni most Obrenovac Road-pipeline bridge Obrenovac	42.53	11.01	1 x 80.00 1 x 120.00	7	55
19.	Sava Sava	Železniški most Ostružnica Railway bridge Ostružnica	15.43	8.41	2x75.00	7	55
20.	Sava Sava	Cestni most Ostružnica Road bridge Ostružnica	15.00	10.56	150.00	7	55
21.	Sava Sava	Cestni most Beograd – Ada Ciganlija Road bridge Belgrade – Ada Ciganlija	3.80	15.06	150.00	7	55
22.	Sava Sava	Novi železniški most Beograd New railway bridge Belgrade	3.00	16.06	120.00	7	55
23.	Sava Sava	Stari železniški most Beograd Old railway bridge Belgrade	2.73	6.96*	90.00	7	55
24.	Sava Sava	Cestni most "Gazela" Beograd Road bridge "Gazela" Belgrade	2.52	10.87	200.00	7	55

Br. No.	Reka River	Naziv mosta Bridge Name	Stacionaža mosta (rkm) Bridge Chainage (rkm)	Gabariti plovbene odprtine Dimension of the Bridge Opening		Gabariti zahtevani po klasifikaciji Height Required by Classification	
				Višina pri VPN (m) Height at HNL (m)	Širina pri VPN (m) Width at HNL (m)	Višina pri VPN (m) Height at HNL (m)	Širina pri VPN (m) Width at HNL (m)
25.	Sava Sava	Cestno-tramvajski most Beograd Road-tramway bridge Belgrade	1.43	10.27	90.00	7	55
26.	Sava Sava	Cestni most Beograd "Brankov most" Road bridge Belgrade "Branko's bridge"	1.00	9.94	100.00	7	55
27.	Kupa Kupa	Cestni most novi Sisak Road bridge new Sisak	4.68	8.60	34.25*	3	35
28.	Kupa Kupa	Cestni most stari Sisak Road bridge old Sisak	3.40	0*	34.31*	3	35
29.	Kupa Kupa	Železniški most Sisak Railway bridge Sisak	2.10	7.32	21.50*	3	35
30.	Una Una	Cestni most Jasenovac Road bridge Jasenovac	0.05	6.18	32.50*	3	45
31.	Kolubara Kolubara	Cestni most Obrenovac Road bridge Obrenovac	2.96	2.63*	14.00*	3	35
32.	Sava Sava	Cestni most Brežice Road bridge Brežice	719.40	0.15**	34.31**	3	35
33.	Sava Sava	Cestni most Čadež Road bridge Čadež	718.40	2.09**	27,90**	3	35
34.	Sava Sava	Cestni most Zaprešić Road bridge Zaprešić	698.60	5.23	79.62	3	35
35.	Sava Sava	Cestni most Podsused Road bridge Podsused	696.60	5.31	33.63	3	35
36.	Sava Sava	Železniški most Jankomir Railway bridge Jankomir	693.60	5.85	36.90	3	35
37.	Sava Sava	Cestni most Jadranski Road bridge Jadranski	684.80	5.00	55.83	3	35

Br. No.	Reka River	Naziv mosta Bridge Name	Stacionaža mosta (rkm) Bridge Chainage (rkm)	Gabariti plovbane odprtine Dimension of the Bridge Opening		Gabariti zahtevani po klasifikaciji Height Required by Classification	
				Višina pri VPN (m) Height at HNL (m)	Širina pri VPN (m) Width at HNL (m)	Višina pri VPN (m) Height at HNL (m)	Širina pri VPN (m) Width at HNL (m)
38.	Sava Sava	Most za pešci Savski Pedestrian bridge Savski	684.60	3.15	51.37	3	35
39.	Sava Sava	Železniški most Sava Zeleni Railway bridge Sava Zeleni	684.40	7.79	78.25	3	35
40.	Sava Sava	Cestni most Sloboda Road bridge Sloboda	682.80	4.12	55.77	3	35
41.	Sava Sava	Cestni most Most mladosti Road bridge Most mladosti	680.70	5.93	61.10	3	35
42.	Sava Sava	Železniški most Mičevac Railway bridge Mičevac	676.30	9.04	58.88	3	35
43.	Sava Sava	Cestni most Domovinski most Road bridge Domovinski most	673.70	9.41	86.34	3	35
44.	Sava Sava	Cestni most Ivana Reka Road bridge Ivana reka	668.80	11.38	36.57	3	35
45.	Sava Sava	Cestni most Martinska Ves Road bridge Martinska Ves	622.80	3.92	99.57	3	45

* Gabarit plovbane odprtine ne izpolnjuje gabarit zahtevan po klasifikaciji

* Dimension of the bridge opening does not satisfies dimension required by the classification

** Vrednosti gabarita plovne odprtine so dane za vrednost vodostaja stoletne vode H100

** Dimension of the Bridge Opening are given with reference to the values of water level of 100 year recurrence period H₁₀₀

Tabelarni pregled mostov in njihovih plovbenih odprtin na reki Savi in njenih pritokih
Tabular overview of bridges and their navigable openings on the Sava River and its navigable tributaries with international regime of navigation

List. št. rska	Naziv mosta	Stacionaža mosta	Zaporedne številke stebrov pri plovbenih odprtinah	Dimenzijs plovbenih odprtin mostov												Kota spodnjega roba mosta						Merodajna vodomerna postaja	Stacionaža vodomerne postaje	Absolutna kota "0" vodomerne postaje	Plovbeni nivoji v odnosu na koto "0" merodajne v.p..				V odnosu na morje:							
				Korisna širina				Koristna višina pri VPN				Koristna višina pri koti "0" merodajne v.s.																								
				pri NPN		pri VPN		v sredini odprtine		na robu plovbenega območja		v sredini odprtine		na robu plovbenega območja		v sredini odprtine		na robu plovbenega območja																		
				Za plovila pri																																
		(rkm)			(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m.n.m.)	(m.n.m.)	(m.n.m.)	(rkm)	(m.n.m.)	(cm)	(cm)	(m.n.m.)	(m.n.m.)	(m.n.m.)							
Drawing No. River	Bridge name	Bridge chanage	Numerals representing the fairway opening	Dimensions of bridge openings												Absolute height of the bottom edge of the bridge structure						Corresponding gauging station	Gauging station chanage	Representative water stages in comparison to "0" level of corresponding gauging station	Absolute water stages				In reference to sea:							
				Available width				Available clearance at HNL				Clearance at the "0" level of corresponding gauging station				at LNL		at HNL		in the middle of the opening		at the fairway edge		in the middle of the opening		at the fairway edge										
				downstream navigation		upstream navigation		downstream		upstream		downstream		upstream		downstream		upstream		downstream		upstream		downstream		upstream										
				(rkm)				(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m.a.s.l.)	(m.a.s.l.)	(m.a.s.l.)	(rkm)	(m.a.s.l.)	(cm)	(cm)	(m.a.s.l.)	(m.a.s.l.)	(m.a.s.l.)							
1.	Sava Sava	Cestni most Galdovo Road bridge Galdovo	593,70	I-II	I-II	49,00	49,00	49,00	49,00	5,74	5,74	5,39	5,39	12,91	12,91	12,56	12,56	104,25	104,25	103,90	103,90	Crnac Crnac	588,20	91,34	-183	692	89,51	98,26	89,77	98,51	91,55	Jadransko Adriatic				
2.	Sava Sava	Cestni most Crnac Road bridge Crnac	587,70	III-IV	III-IV	67,80	67,80	67,80	67,80	7,60	7,60	6,67	6,67	14,50	14,50	13,57	13,57	105,84	105,84	104,91	104,91	Crnac Crnac	588,20	91,34	-183	692	89,51	98,26	89,49	98,24	91,33	Jadransko Adriatic				
3.	Sava Sava	Železniški most Jasenovac Railway bridge Jasenovac	517,20	II-III	II-III	41,00	41,00	41,00	41,00	6,17	6,17	6,17	6,17	14,38	14,38	14,38	14,38	101,20	101,20	101,20	101,20	Jasenovac Jasenovac	516,20	86,82	-74	816	86,08	94,98	86,13	95,03	86,85	Jadransko Adriatic				
4.	Sava Sava	Cestni most Jasenovac Road bridge Jasenovac	515,60	VI-VII	VI-VII	110,00	110,00	110,00	110,00	7,20	7,20	5,35	5,35	15,34	15,34	13,49	13,49	102,16	102,16	100,31	100,31	Jasenovac Jasenovac	516,20	86,82	-74	816	86,08	94,98	86,06	94,96	86,72	Jadransko Adriatic				
5.	Sava Sava	Cestni most Gradiška Road bridge Gradiška	466,80	II-III	II-III	89,00	89,00	89,00	89,00	7,72	7,72	7,36	7,36	18,62	18,62	18,26	18,26	101,21	101,21	100,85	100,85	Davor Davor	423,80	82,59	90	960	83,49	92,19	84,70	93,49		Jadransko Adriatic				
6.	Sava Sava	Produktovod Brod Pipeline bridge Brod	374,80	I-II	I-II	104,30	104,30	104,30	104,30	17,87	17,87	16,47	16,47	25,45	25,45	24,05	24,05	107,25	107,25	105,85	105,85	Slavonski Brod Slavonski Brod	371,30	81,80	-13	738	81,67	89,18	81,79	89,38	81,85	Jadransko Adriatic				
7.	Sava Sava	Cestni most Brod Road bridge Brod	371,50	II-III	II-III	66,30	66,30	66,30	66,30	7,64	7,64	7,64	7,64	15,03	15,03	15,03	15,03	96,83	96,83	96,83	96,83	Slavonski Brod Slavonski Brod	371,30	81,80	-13	738	81,67	89,18	81,68	89,19	81,80	Jadransko Adriatic				
8.	Sava Sava	Cestni most Svilaj Road bridge Svilaj	329,10	IV-V	IV-V	91,00	91,00	91,00	91,00	9,46	9,46	8,56	8,56	16,48	16,48	15,58	15,58	97,18	97,18	96,28	96,28	Slavonski Šamac Slavonski Šamac	314,30	80,70	-191	651	78,79	87,21	79,54	87,72		Jadransko Adriatic				
9.	Sava Sava	Cestno-železniški most Šamac Road-railway bridge Šamac	311,80	II-III	II-III	65,30	65,30	65,30	65,30	8,16	8,16	8,16	8,16	14,52	14,52	14,52	14,52	95,22	95,22	95,22	95,22	Slavonski Šamac Slavonski Šamac	314,30	80,70	-191	651	78,79	87,21	78,64	87,06	80,57	Jadransko Adriatic				
10.	Sava Sava	Cestni most Županja Road bridge Županja	261,60	XI-XII	XI-XII	117,80	117,80	117,80	117,80	10,23	10,23	7,85	7,85	18,18	18,18	15,80	15,80	94,46	94,46	92,08	92,08	Županja Županja	267,50	76,28	-38	815	75,90	84,43	75,86	84,23	76,20	Jadransko Adriatic				
11.	Sava Sava	Cestni most Gunja Road bridge Gunja	228,80	XXI-XXII	XXI-XXII	47,50	47,50	47,50	47,50	7,62	7,62	7,62	7,62	16,42	16,42	16,42	16,42	90,74	90,74	90,74	90,74	Gunja Gunja	228,80	74,32	131	880	75,63	83,12	75,63	83,12	74,32	Jadransko Adriatic				
12.	Sava Sava	Železniški most Gunja Railway bridge Gunja	226,80	XVII-XVIII	XVII-XVIII	120,00	120,00	120,00	120,00	9,65	9,65	9,58	9,58	18,38	18,38	18,31	18,31	92,70	92,70	92,63	92,63	Gunja Gunja	228,80	74,32	131	880	75,63	83,12	75,62	83,05		Jadransko Adriatic				
13.	Sava Sava	Cestno-železniški most Rača Road-railway bridge Rača	183,31	I-II	I-II	140,00	140,00	140,00	140,00									17,23	17,23	17,23	17,23	Jamena Jamena	204,80	72,44							73,17		Jadransko Adriatic			
14.	Sava Sava	Most za pešci Sremska Mitrovica Pedestrian bridge Sremska Mitrovica	139,24	III-IV	III-IV	100,00	100,00	100,00	100,00	10,30	10,30	8,37	8,37	16,52	16,52	14,59	14,59	88,74	88,74	86,81	86,81	Sremska Mitrovica Sremska Mitrovica	139,24	72,22	37	622	72,59	78,44	72,44	78,44	72,22	Jadransko Adriatic				
15.	Sava Sava	Cestni most Sremska Mitrovica Road bridge Sremska Mitrovica	136,60	III-IV	III-IV	150,00	150,00	150,00	150,00	11,18	11,18	9,30	9,30	17,32	17,32	15,44	15,44	89,54	89,54	87,66	87,66	Sremska Mitrovica Sremska Mitrovica	139,24	72,22	37	622	72,59	78,44	72,54	78,36	72,17	Jadransko Adriatic				
16.	Sava Sava	Železniški most Šabac Railway bridge Šabac	106,96	III-IV	III-IV	75,00	75,00	75,00	75,00	6,68	6,68	6,46	6,46	11,48	11,48	11,26	11,26	84,09	84,09	83,87	83,87	Šabac Šabac	106,28	72,61	-64	478	71,97	77,39	71,98	77,41	72,62	Jadransko Adriatic				
17.	Sava Sava	Cestni most Šabac Road bridge Šabac	104,53	III-IV	III-IV	80,00	80,00	80,00	80,00	9,42	9,42	9,42	9,42	14,13	14,13	14,13	14,13	86,74	86,74	86,74	86,74	Šabac Šabac	106,28	72,61	-64	478	71,97	77,39	71,99	77,32	72,53	Jadransko Adriatic				
18.	Sava Sava	Cestno-toplovodni most Obrenovac Road-pipeline bridge Obrenovac	42,53	XII-XIII	XII-XIII	120,00	80,00	120,00	80,00	11,07	11,07	11,07	11,07	17,97	17,97	17,97	17,97	86,25	86,18	86,24	86,12	Beograd Beograd	0,82	68,28	162	560	69,90	73,88	70,06	75,11	68,44	Jadransko Adriatic				
19.	Sava Sava	Železniški most Ostružnica Railway bridge Ostružnica	15,43	V-VI	IV-V	75,00	75,00	75,00	75,00	8,49	8,45	8,46	8,41	14,52	14,48	14,49	14,44	82,80																		

Tabelarni pregled mostov in njihovih plovbenih odprtin na reki Savi na odseku od Siska do meje SLO-HRV z nacionalnim režimom plovbe
Tabular overview of bridges and their navigable openings on the Sava River on the section with state regime of navigation

List št.	Reka	Naziv mosta	Stacionaža mosta	Zaporedne številke stebrov pri plovbenih odprtinah	Dimenzijs plovbenih odprtin mostov			Kota spodnjega roba mosta		Merodajna vodomerna postaja	Stacionaža vodomerne postaje	Absolutna kota "0" vodomerne postaje	Absolutna kota VPN	V odnosu na morje:					
					Koristna širina pri VPN	Koristna višina pri VPN													
					pri VPN	v sredini odprtine	na robu plovbenega območja	v sredini odprtine	na robu plovbenega območja										
(rkm)	(rkm)	(m)	(m)	(m)	(m.n.m.)	(m.n.m.)	(rkm)	(m.n.m.)	(m.n.m.)	(rkm)	(m.a.s.l.)	(m.a.s.l.)	(m.a.s.l.)						
Drawing No.	River	Bridge name	Bridge chainage	Numerals representing the fairway opening	Dimensions of bridge openings			Absolute height of the bottom edge of the bridge structure		Corresponding gauging station	Gauging station chainage	"0" level of the gauging station	Absolute HNL stage	In reference to sea:					
					Available width at HNL	Available clearance at HNL								in the middle of the opening	at the fairway edge	in the middle of the opening	at the fairway edge		
					(m)	(m)	(m)	(m)	(m)					(m.a.s.l.)	(m.a.s.l.)	(rkm)	(m.a.s.l.)	(m.a.s.l.)	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15					
32.	Sava	Cestni most Brežice* Road bridge Brežice*	719,40	II-III	34,54	0,15	0,15	147,80	147,80	Čatež 1 Čatež 1	717,9	137,28	147,45	Jadransko Adriatic					
33.	Sava	Cestni most Čatež* Road bridge Čatež*	718,40	III-IV	27,90	2,31	2,09	149,45	145,23	Čatež 1 Čatež 1	717,9	137,28	146,3	Jadransko Adriatic					
34.	Sava	Cestni most Zaprešić Road bridge Zaprešić	698,60	I-II	79,62	7,59	5,23	132,49	130,13	Podsused Podsused	695,60	119,13	124,90	Jadransko Adriatic					
35.	Sava	Cestni most Podsused Road bridge Podsused	696,60	VI-VII	33,63	5,32	5,31	127,73	127,72	Podsused Podsused	695,60	119,13	122,41	Jadransko Adriatic					
36.	Sava	Železniški most Jankomir Railway bridge Jankomi	693,60	III-IV	36,90	5,89	5,85	125,70	125,66	Podsused Podsused	695,60	119,13	119,81	Jadransko Adriatic					
37.	Sava	Cestni most Jadranski Road bridge Jadranski	684,80	III-IV	58,53	5,14	5,00	119,83	119,69	Zagreb Zagreb	687,70	112,26	114,69	Jadransko Adriatic					
38.	Sava	Most za pešci Savski Pedestrian bridge Savski	684,60	I-II	51,37	3,28	3,15	117,87	117,74	Zagreb Zagreb	687,70	112,26	114,59	Jadransko Adriatic					
39.	Sava	Železniški most Sava Zeleni Railway bridge Sava Zeleni	684,40	I-II	78,25	7,96	7,79	122,48	122,31	Zagreb Zagreb	687,70	112,26	114,52	Jadransko Adriatic					
40.	Sava	Cestni most Sloboda Road bridge Sloboda	682,80	V-VI	55,77	6,39	4,12	119,61	117,36	Zagreb Zagreb	687,70	112,26	113,22	Jadransko Adriatic					
41.	Sava	Cestni most Most mladosti Road bridge Most mladosti	680,70	III-IV	61,10	5,93	5,93	116,80	116,80	Zagreb Zagreb	687,70	112,26	110,87	Jadransko Adriatic					
42.	Sava	Železniški most Mičevac Railway bridge Mičevac	676,30	IV-V	58,88	9,09	9,04	115,43	115,38	Zagreb Zagreb	687,70	112,26	106,34	Jadransko Adriatic					
43.	Sava	Cestni most Domovinski most Road bridge Domovinski most	673,70	III-IV	86,34	9,72	9,41	115,15	114,84	Zagreb Zagreb	687,70	112,26	105,43	Jadransko Adriatic					
44.	Sava	Cestni most Ivanja reka Road bridge Ivanja reka	668,80	II-III	36,57	11,60	11,38	115,24	115,02	Rugvica Rugvica	657,30	95,61	103,64	Jadransko Adriatic					
45.	Sava	Cestni most Martinska Ves Road bridge Martinska Ves	622,80	I-II	99,57	6,00	3,92	106,12	104,04	Tišina Kaptolska Tišina Kaptolska	612,00	90,45	100,12	Jadransko Adriatic					

Slovenija
Slovenia

32 33
34 Zagreb
35 39 41 44
36 37 40 43
38 42
45

Hrvaska
Croatia

Kupa
Sisak 594
27 28 29
575 550
525 500
Una Sava
475 450 425
Slavonski Brod 7
3 4 30 5
375 350 300 275
325 250
Bosna
200 150 125
14 15 13 12 11 10 9 8 7 6 5 4 3 2 1

Hrvaska
Croatia

Mostovi na mednarodnem vodnem območju

- | | |
|----|--|
| 1 | Cestni most Galdovo
Road bridge Galdovo |
| 2 | Cestni most Crnac
Road bridge Crnac |
| 3 | Železniški most Jasenovac
Railway bridge Jasenovac |
| 4 | Cestni most Jasenovac
Road bridge Jasenovac |
| 5 | Cestni most Gradiška
Road bridge Gradiška |
| 6 | Produktovod Brod
Pipeline bridge Brod |
| 7 | Cestni most Brod
Road bridge Brod |
| 8 | Cestni most Svilaj
Road bridge Svilaj |
| 9 | Cestno Železniški most Šamac
Road-railway bridge Šamac |
| 10 | Cestni most Županja
Road bridge Županja |
| 11 | Cestni most Gunja
Road bridge Gunja |
| 12 | Železniški most Gunja
Railway bridge Gunja |
| 13 | Cestno-železniški most Rača
Road-railway bridge Rača |
| 14 | Most za pešci Sremska Mitrovica
Pedestrian bridge Sremska Mitrovica |
| 15 | Cestni most Sremska Mitrovica
Road bridge Sremska Mitrovica |
| 16 | Železniški most Šabac
Railway bridge Šabac |
| 17 | Cestni most Šabac
Road bridge Šabac |
| 18 | Cestno-toplovodni most Obrenovac
Road-pipeline bridge Obrenovac |
| 19 | Železniški most Ostružnica
Railway bridge Ostružnica |
| 20 | Cestni most Ostružnica
Road bridge Ostružnica |
| 21 | Cestni most Beograd – Ada Ciganlija
Road bridge Belgrade – Ada Ciganlija |
| 22 | Novi železniški most Beograd
New railway bridge Belgrade |
| 23 | Stari železniški most Beograd
Old railway bridge Belgrade |
| 24 | Cestni most "Gazela" Beograd
Road bridge "Gazela" Belgrade |
| 25 | Cestno-tramvajski most Beograd
Road-tram bridge Belgrade |
| 26 | Cestni most Beograd - "Brankov most"
Road bridge Belgrade - "Branko's bridge" |
| 27 | Cestni most novi Sisak
Road bridge new Sisak |
| 28 | Cestni most stari Sisak
Road bridge old Sisak |
| 29 | Železniški most Sisak
Railway bridge Sisak |
| 30 | Cestni most Jasenovac
Road bridge Jasenovac |
| 31 | Cestni most Obrenovac
Road bridge Obrenovac |

Mostovi na državnem vodnem območju

- | | |
|----|--|
| 32 | Cestni most Brežice
Road bridge Brežice |
| 33 | Cestni most Čatež
Road bridge Čatež |
| 34 | Cestni most Zaprešić
Road bridge Zaprešić |
| 35 | Cestni most Podsused
Road bridge Podsused |
| 36 | Železniški most Jankomir
Railway bridge Jankomir |
| 37 | Cestni most Jadranski
Road bridge Jadranski |
| 38 | Most za pešci Savski
Pedestrian bridge Savski |
| 39 | Železniški most Sava Zeleni
Railway bridge Sava Zeleni |
| 40 | Cestni most Sloboda
Road bridge Sloboda |
| 41 | Cestni most Most mladosti
Road bridge Most mladosti |
| 42 | Železniški most Mičevac
Railway bridge Mičevac |
| 43 | Cestni most Domovinski most
Road bridge Domovinski most |
| 44 | Cestni most Ivanja Reka
Road bridge Ivanja reka |
| 45 | Cestni most Martinska Ves
Road bridge Martinska Ves |

Mostovi na reki Savi
in njenih plovnih pritokih
Bridges on the Sava River
and its Navigable Tributaries

Beograd

Šabac 17 100
16 18 20 21 22 23 24
50
Kolubara 31 25
Sava 26 0 25
Sremska Mitrovica 14 15
125
Drina 13 12 11 10 9 8 7 6 5 4 3 2 1

Bosna i Hercegovina
Bosnia & Herzegovina

Srbija
Serbia

LEGENDA LEGEND

- Most
Bridge
- 10 Lokacija mosta
Bridge location
- Kilometarska oznaka
Kilometer sign
- Grad
Town
- Reka
River

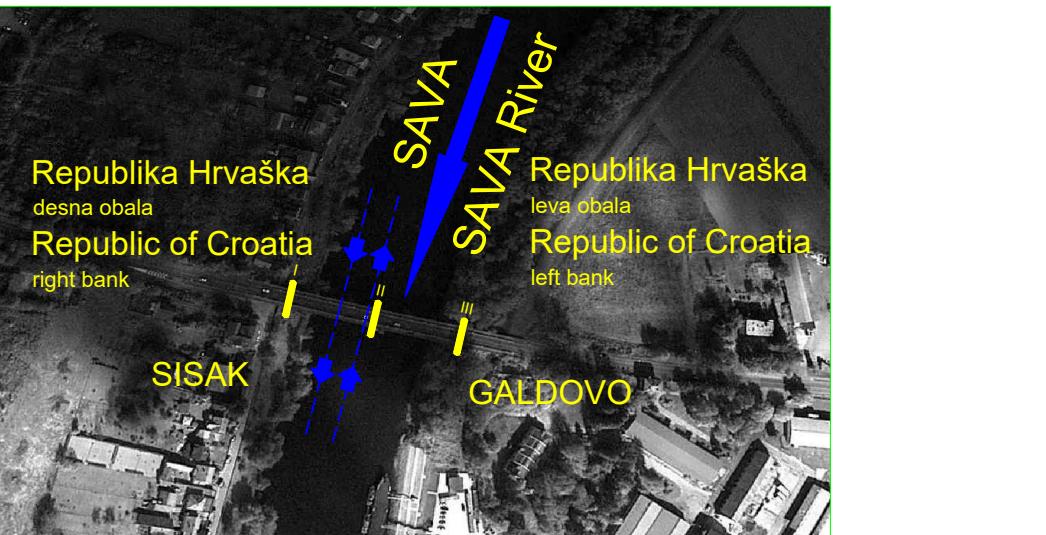
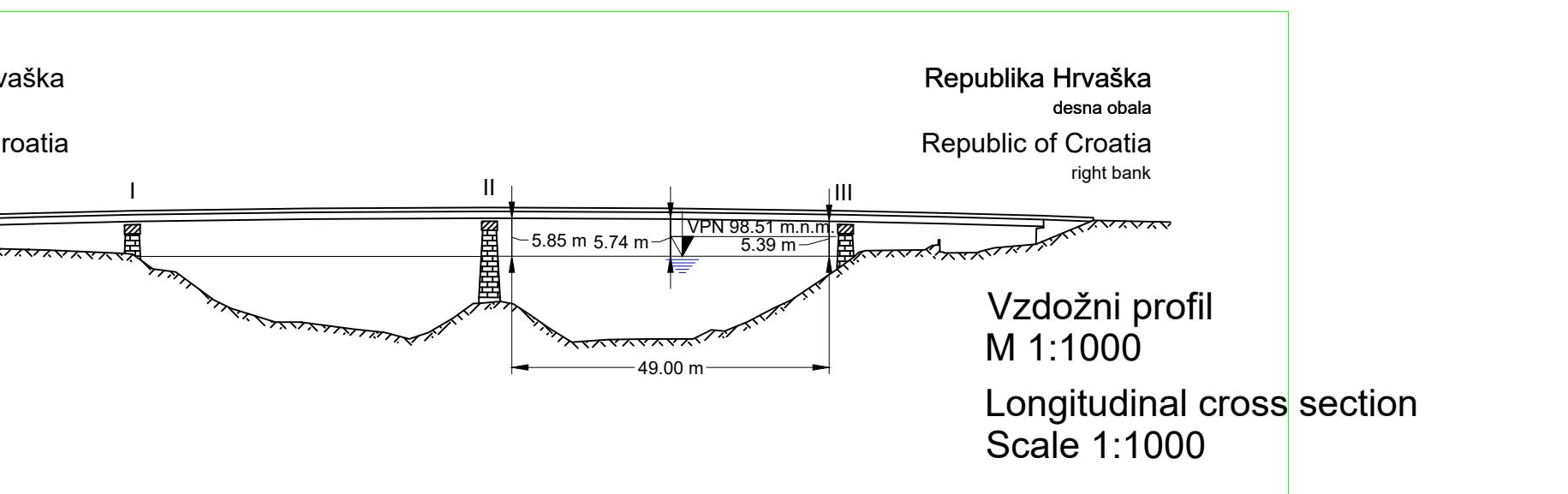
Sarajevo

Cestni most Galdovo, Sava, rkm 593.7

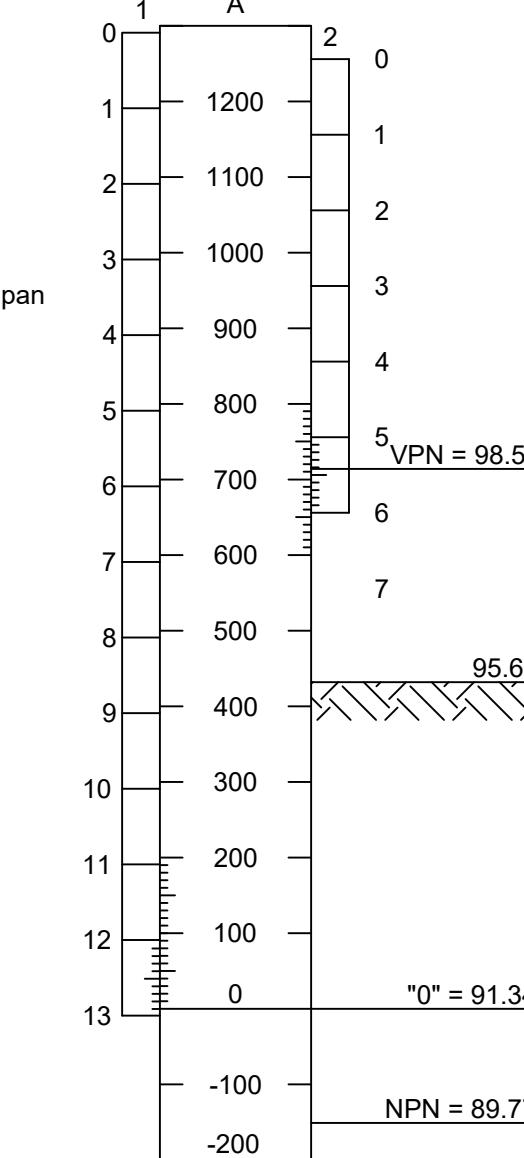
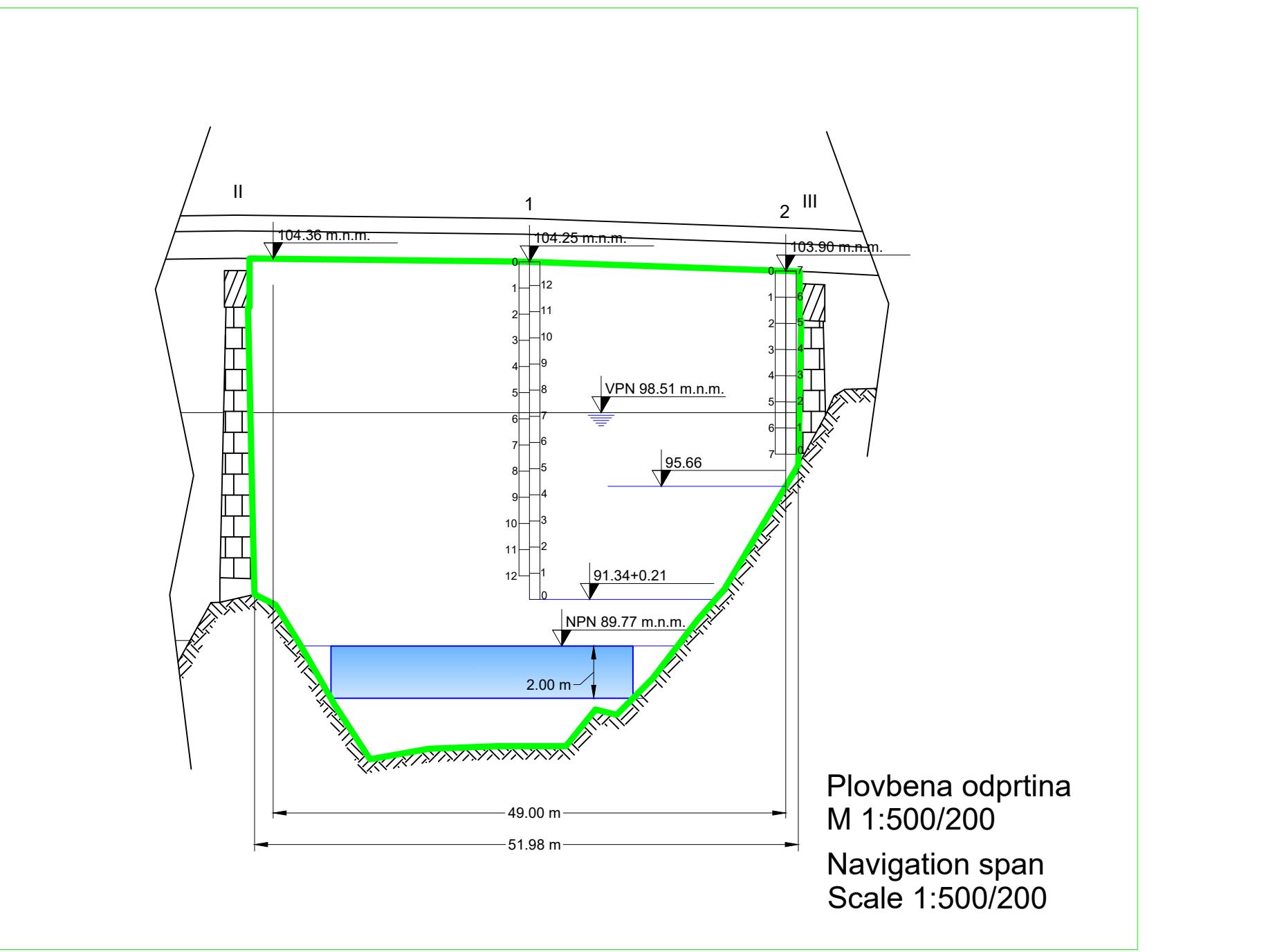
Merodajna vodomerna postaja Crnac, rkm 588.2, kota "0"=91.34 m.n.m.

Road bridge Galdovo, Sava River, rkm 593.7

Referentna vodomerna postaja Crnac, rkm 588.2, voda na ravnini "0"=91.34 m.a.s.l.



Situacija
M 1:5000
Layout
Scale 1:5000

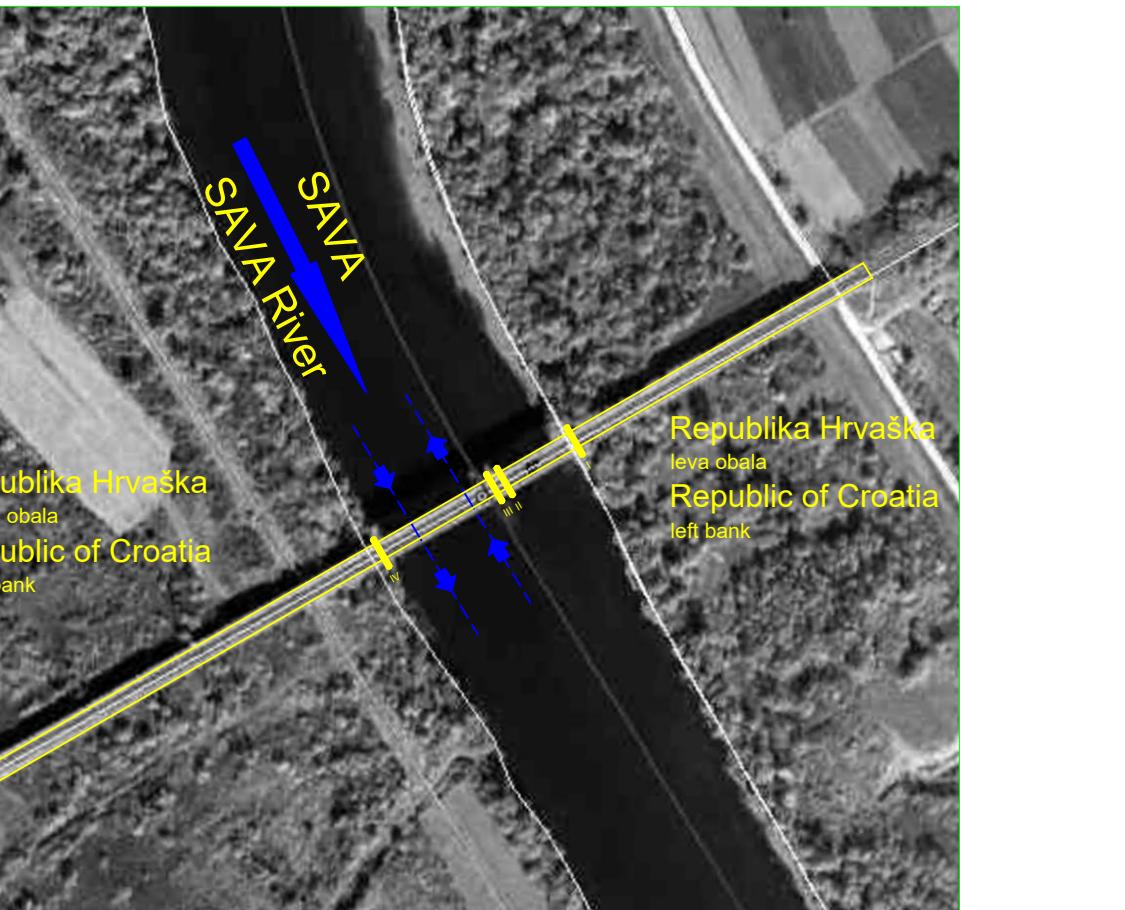


Cestni most Crnac, Sava, rkm 587.7

Merodajna vodomerna postaja Crnac, rkm 588.2, kota "0"=91.34 m.n.m.

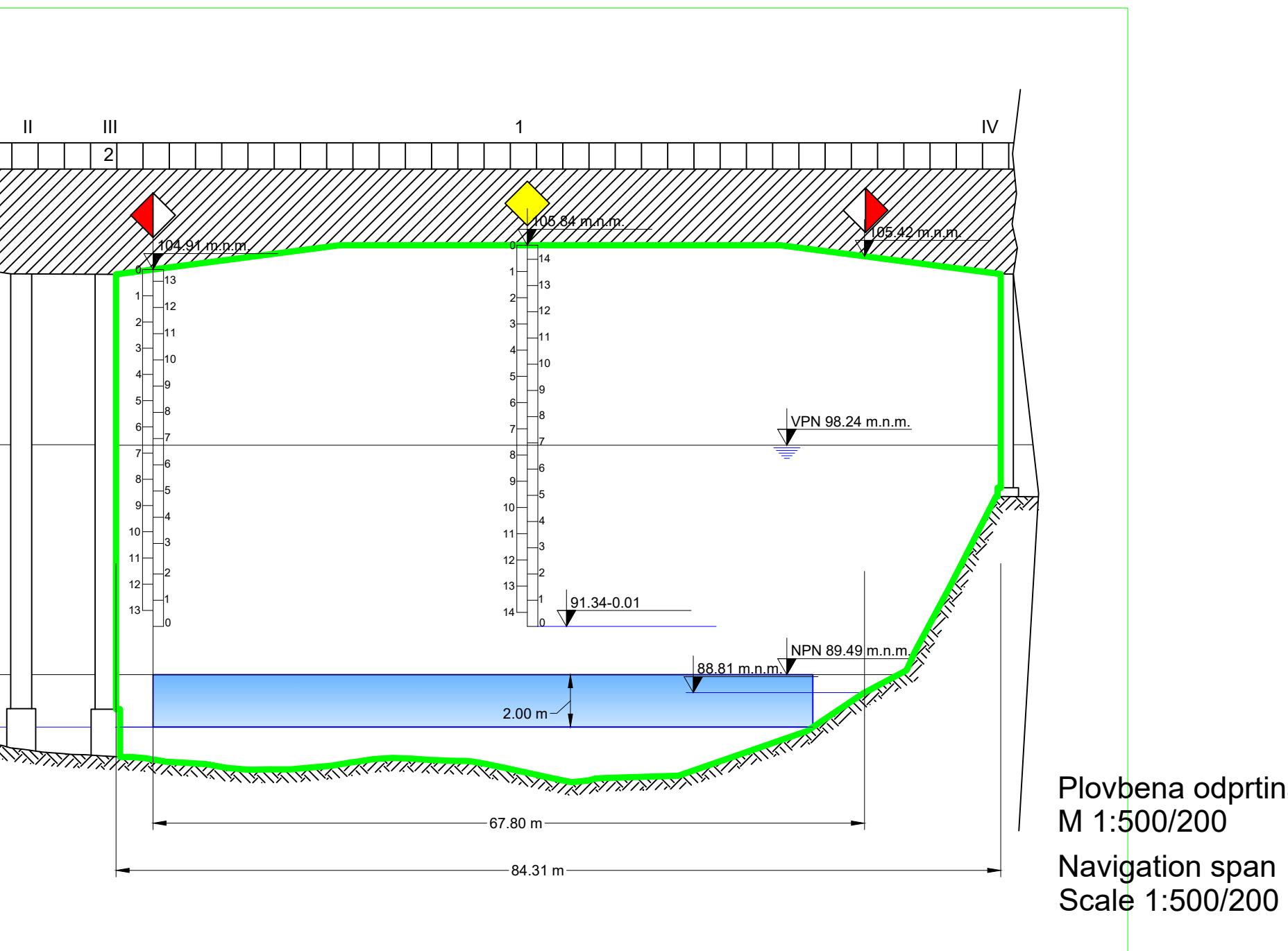
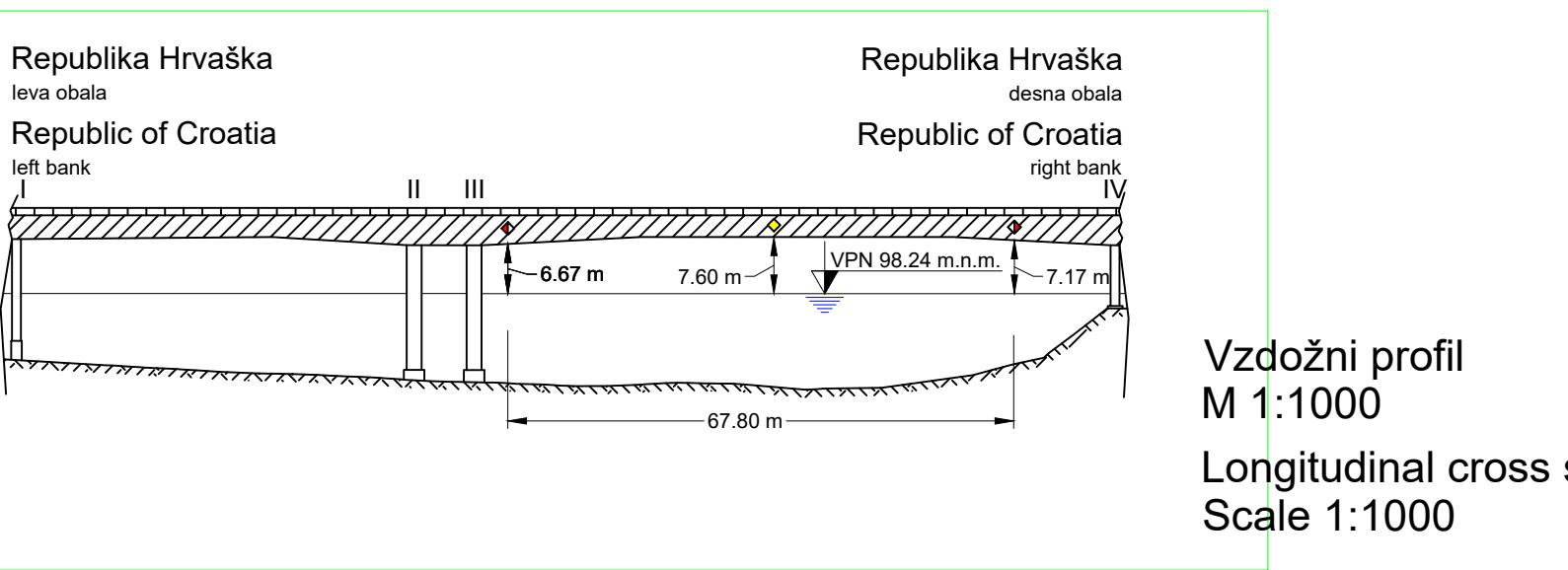
Road bridge Crnac, Sava River, rkm 587.7

Referent water gauge Crnac, rkm 588.2, water level "0"=91.34 m.a.s.l.



Situacija
M 1:5000
Layout
Scale 1:5000

• VPN - visoki plovbeni nivo v profilu mosta
• NPN - nizki plovbeni nivo v profilu mosta
• vse kote so v m.n.m.
• predci profili v mostih odprtini odgovarjajo prečnemu profilu na 120m gorvodno od mosta
• podatki o gabaritih stebrov in temeljev stebrov mostov niso zanesljivi



A. Nivo vode na vodomerni postaji

1. Svetla višina v sredini plovbene odprtine

2. Svetla višina na robu plovbenega območja

T. Globina plovbenega območja v plovbeni odprtini

Opomba:
zmanjšati svetlo višino plovbene odprtine za 10cm

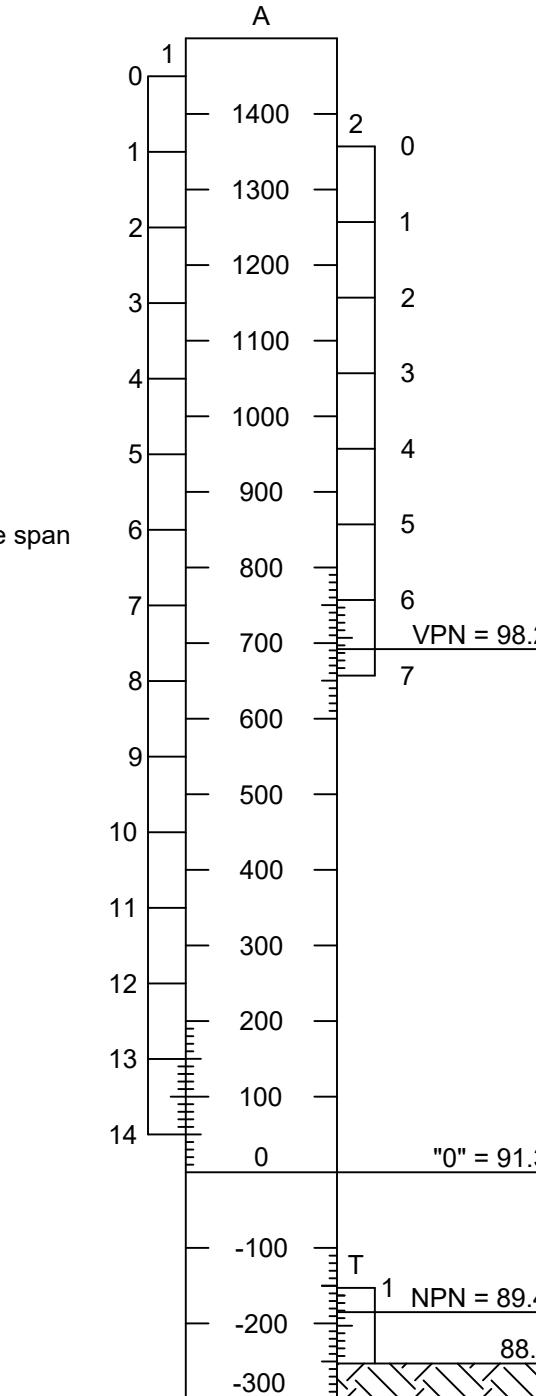
A. Water level at water gauge

1. Vertical bridge clearance to middle of navigation bridge span

2. Vertical bridge clearance at the fairway side

T. Fairway depth in navigation bridge span

Remark:
Vertical clearance should be lowered for 10cm

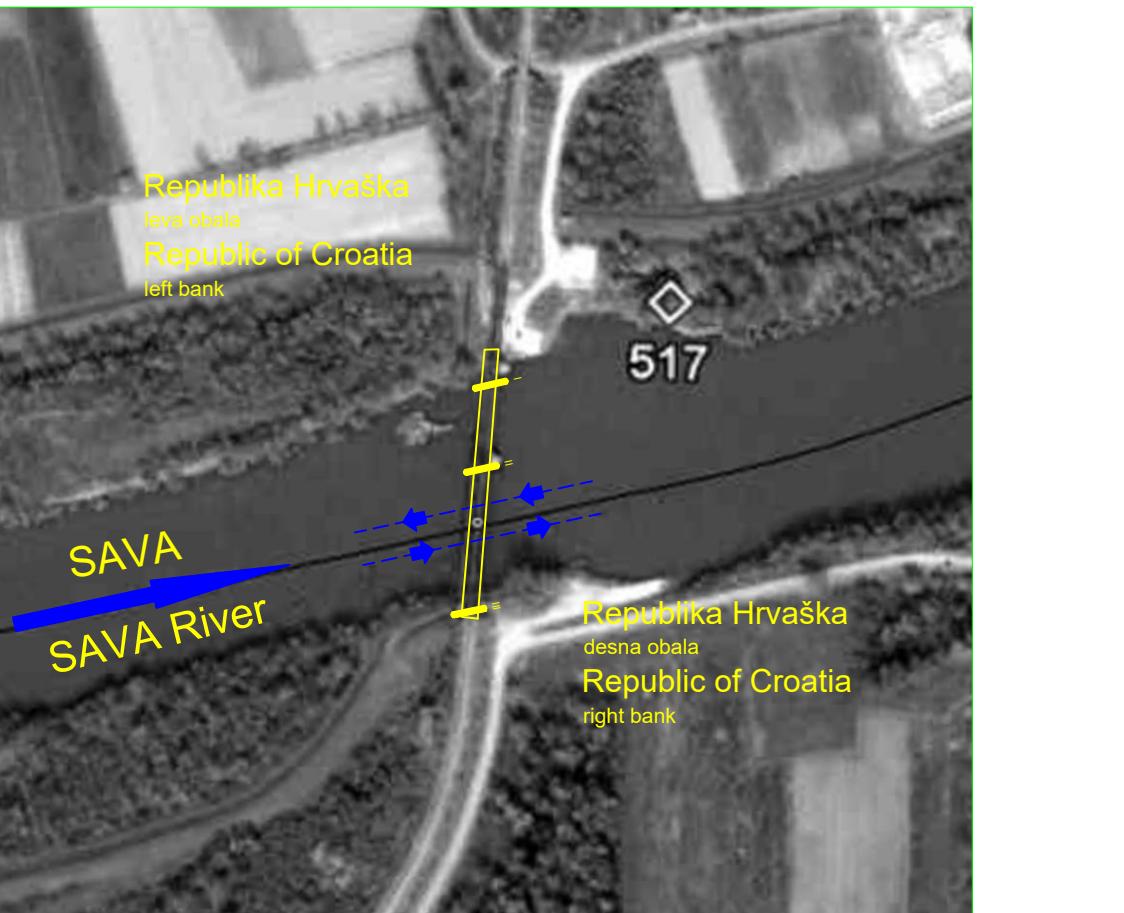


**Železniški most Jasenovac,
Sava, rkm 517.2**

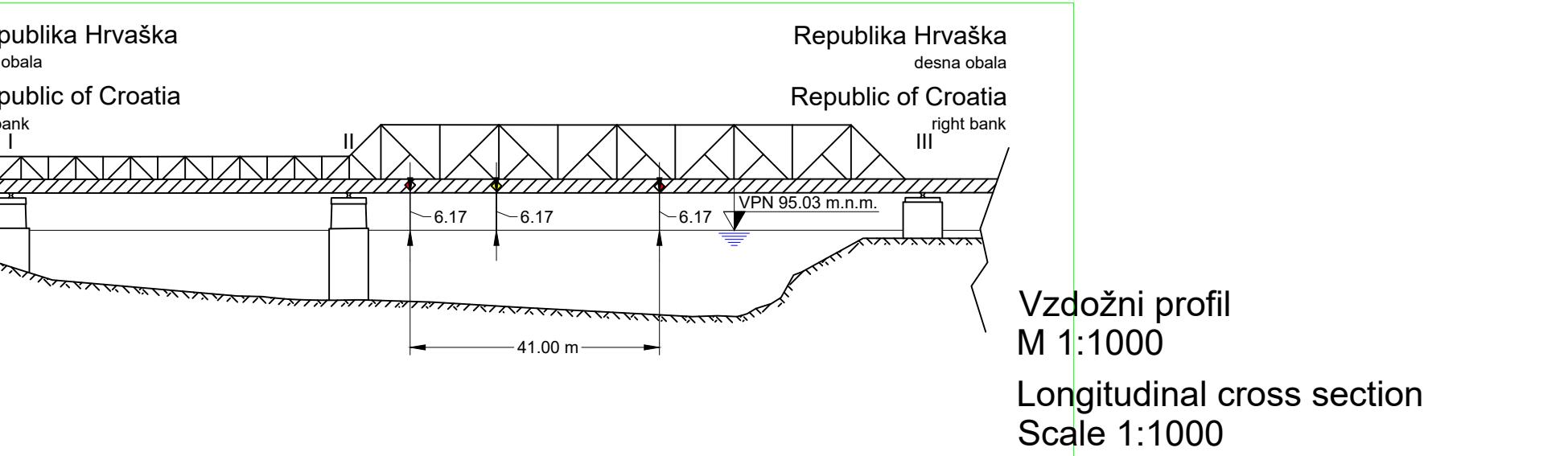
Merodajna vodomerna postaja Jasenovac, rkm 516.2, kota "0"=86.82 m.n.m.

**Railway bridge Jasenovac,
Sava River, rkm 517.2**

Referentna vodomerna postaja Jasenovac, rkm 516.2, voda na nivo "0"=86.82 m.a.s.l.



Situacija
M 1:5000
Layout
Scale 1:5000



A. Nivo vode na vodomerni postaji

1. Svetla višina v sredini plovbenega odprtine

2. Svetla višina na robu plovbenega območja

T. Globina plovbenega območja v plovbeni odprtini

Opomba:
zmanjšati svetlo višino plovbenega odprtine za 10cm

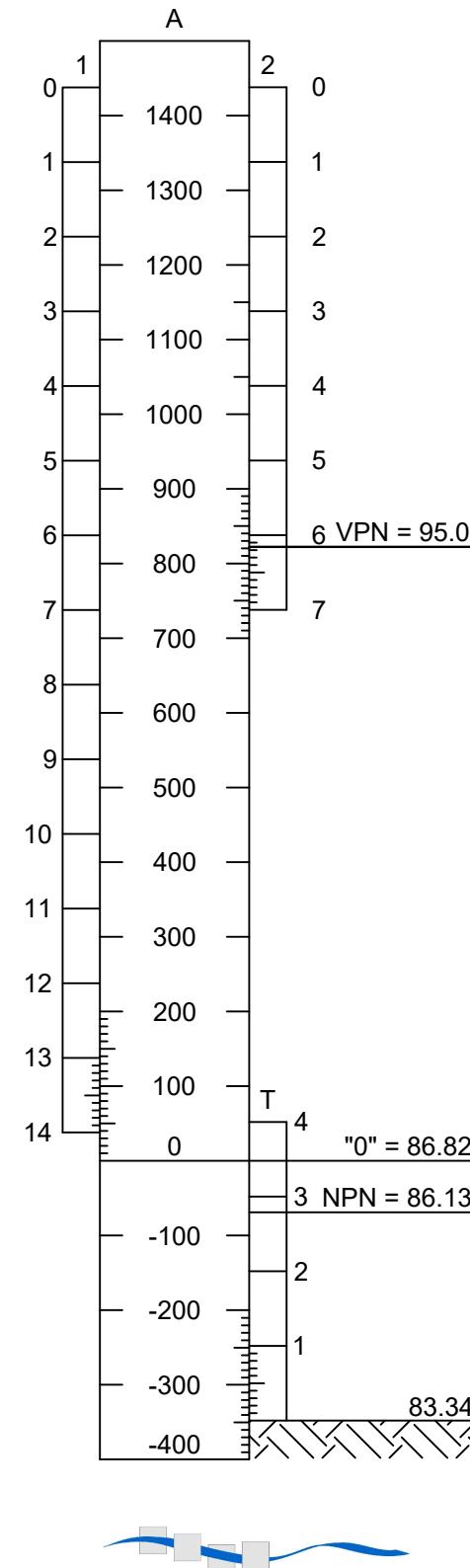
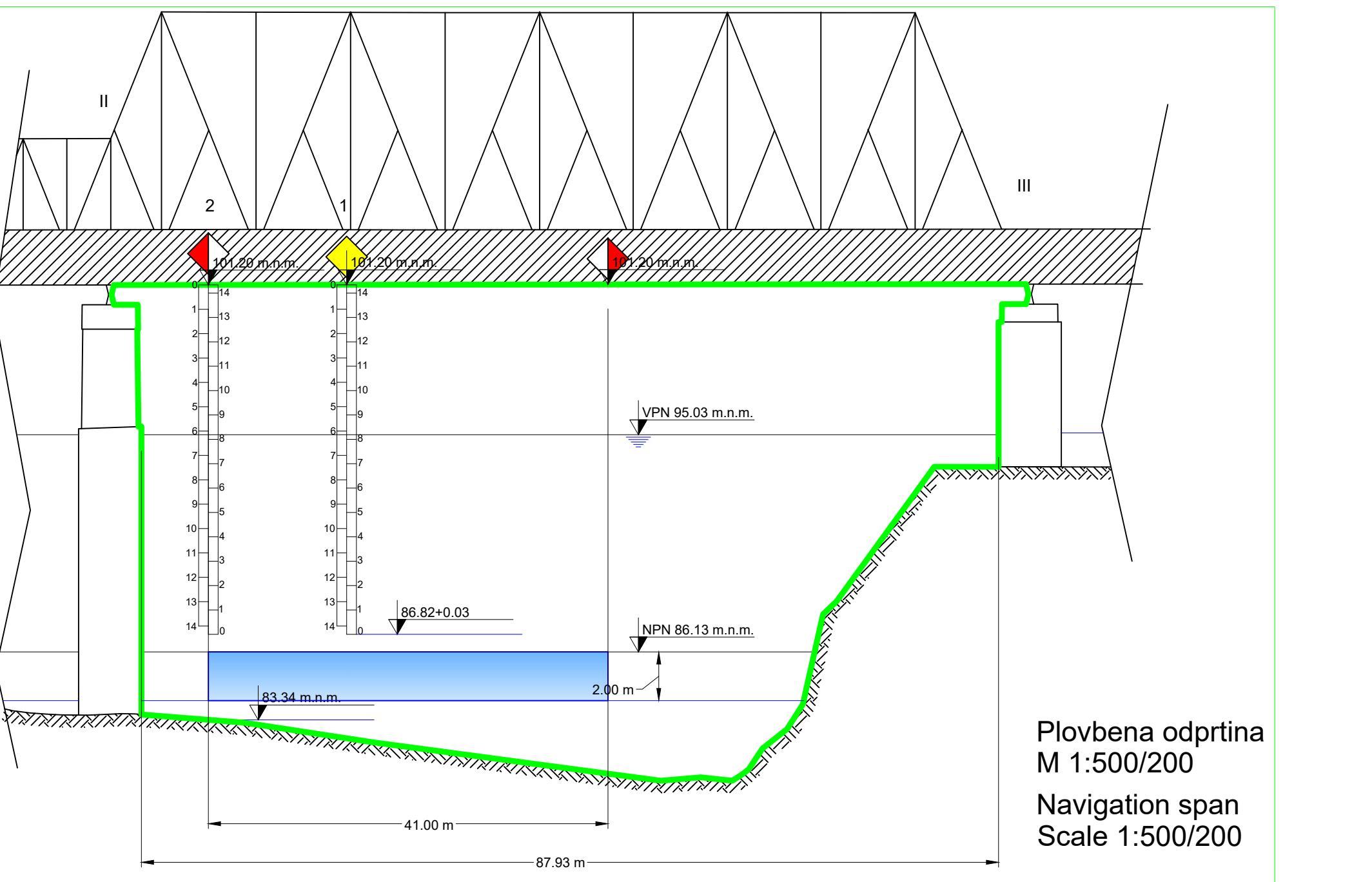
A. Water level at water gauge

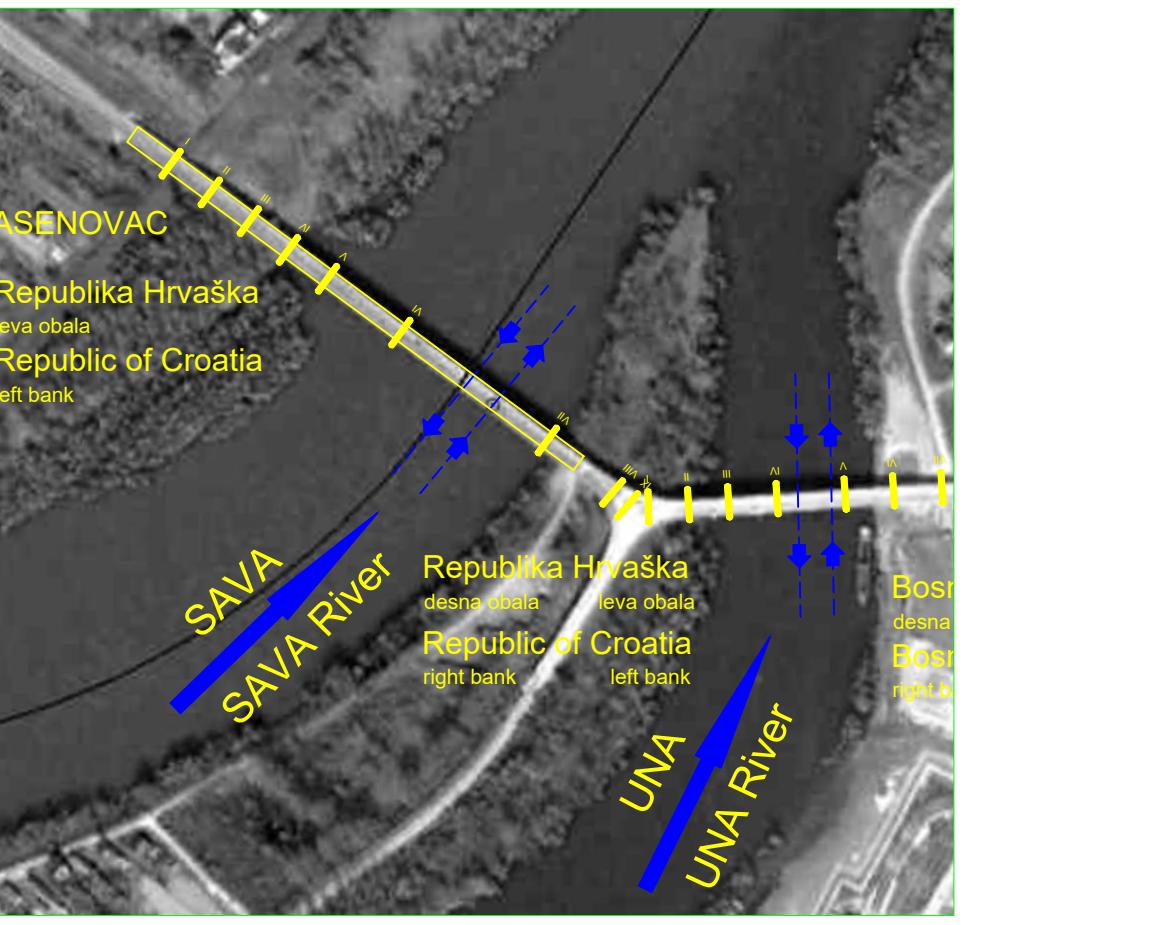
1. Vertical bridge clearance to middle of navigation bridge span

2. Vertical bridge clearance at the fairway side

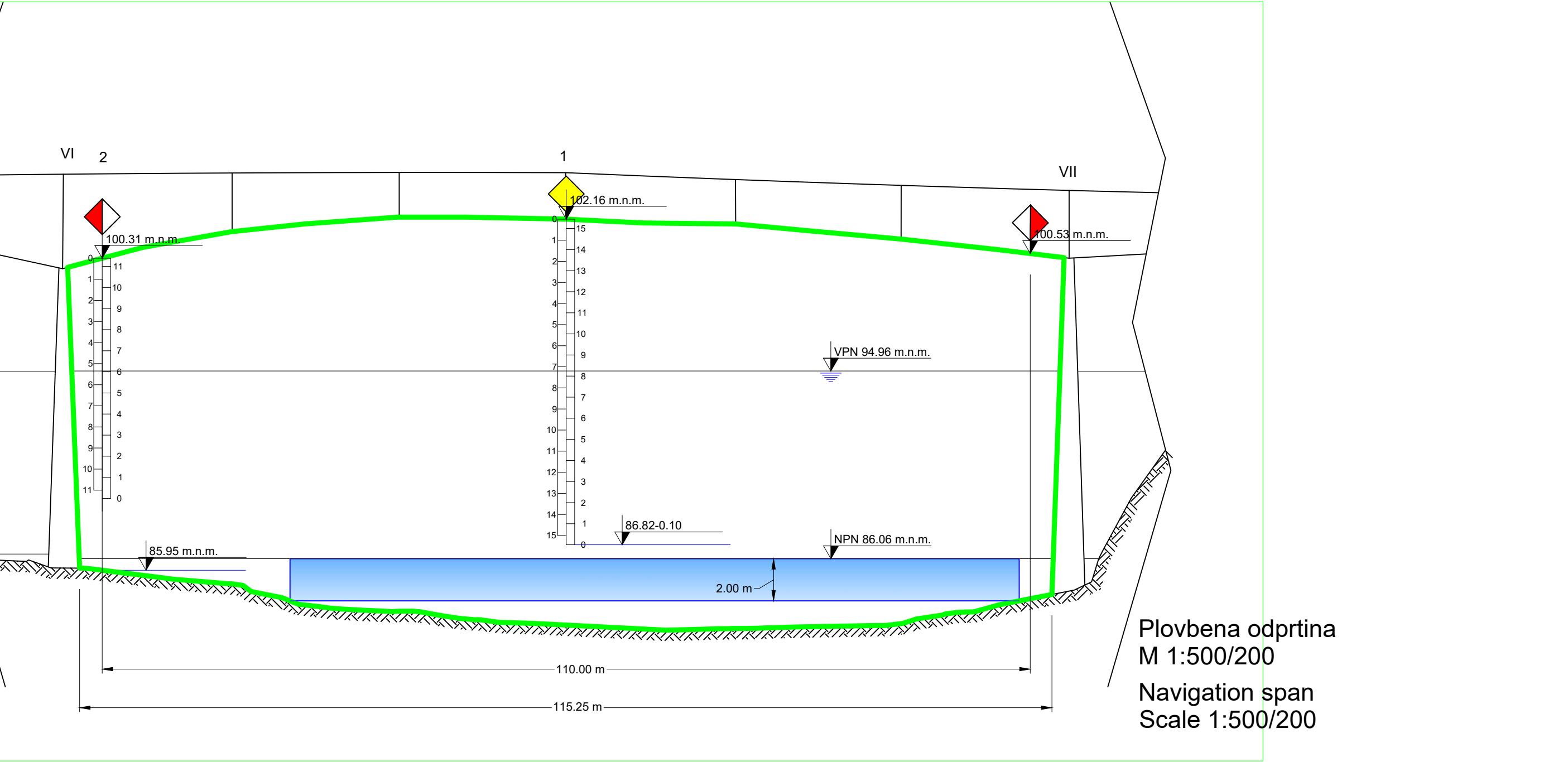
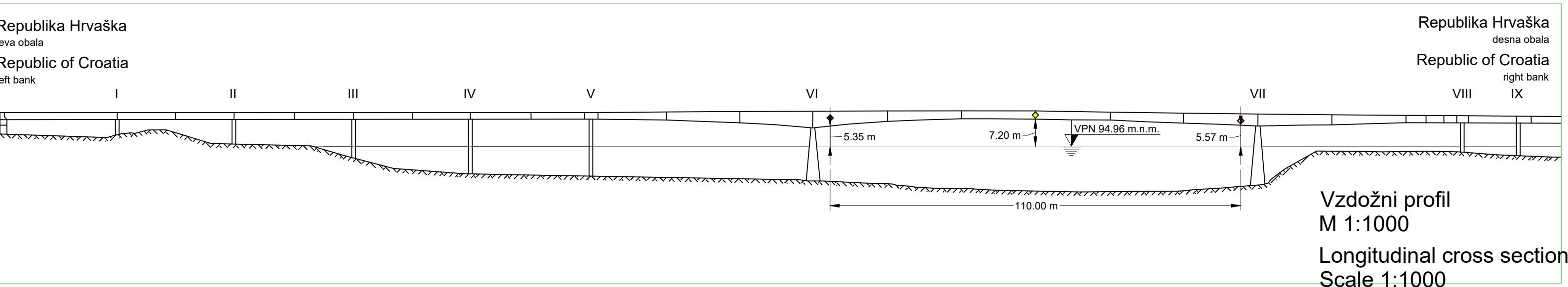
T. Fairway depth in navigation bridge span

Remark:
Vertical clearance should be lowered for 10cm





Situacija
M 1:5000
Layout
Scale 1:5000



- VPN - visoki plovbeni nivo v profilu mosta
- NPN - nizki plovbeni nivo v profilu mosta
- vse kote so v m.n.m.
- podatki o gabaritih stebrov in temeljev stebrov mostov niso zanesljivi

- VPN - high navigation water level (bridge cross section)
- NPN - low navigation water level (bridge cross section)
- all levels are in m.a.s.l.
- pier and piers foundation dimensions are not reliable information

INTERNATIONAL SAVA RIVER BASIN COMMISSION

4

Cestni most Jasenovac, Sava, rkm 515.6

Merodajna vodomerna postaja Jasenovac, rkm 516.2, kota "0"=86.82 m.n.m.

Road bridge Jasenovac, Sava River, rkm 515.6

Referentna vodomerna postaja Jasenovac, rkm 516.2, voda na visini "0"=86.82 m.a.s.l.

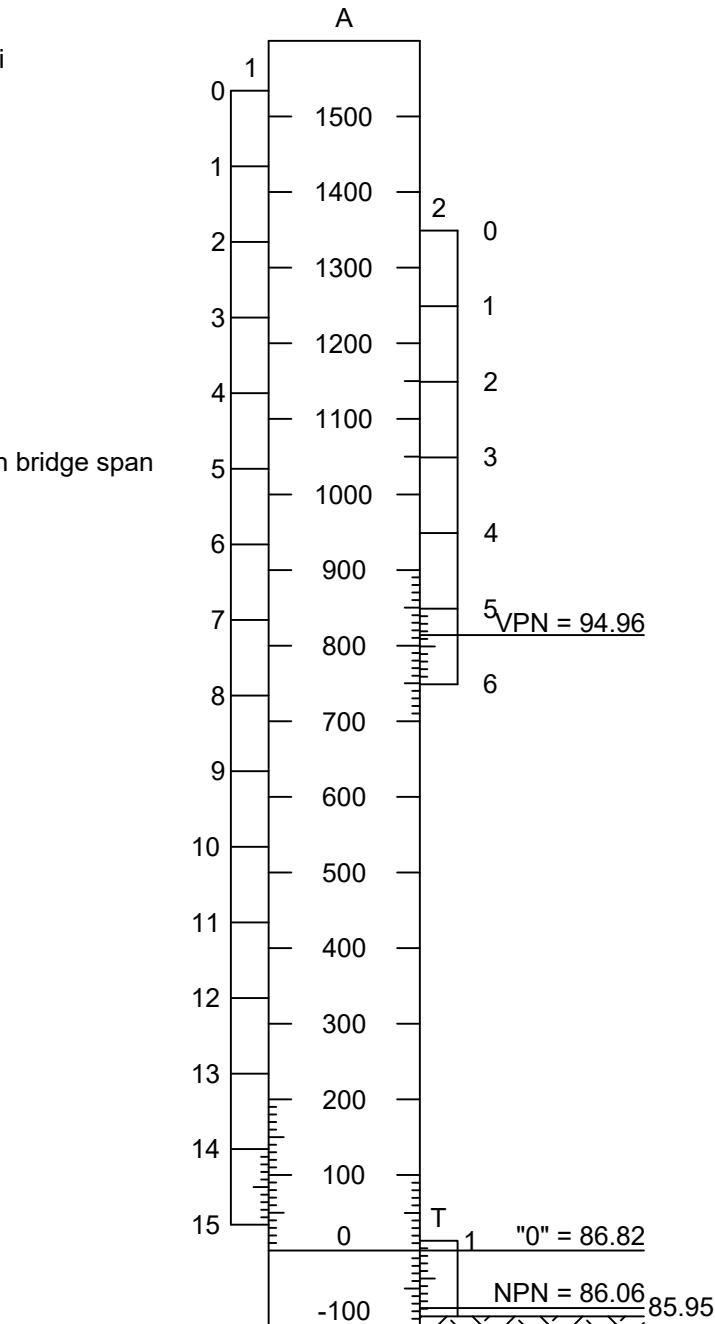
A. Nivo vode na vodomerni postaji

1. Svetla višina v sredini plovbene odprtine

2. Svetla višina na robu plovbenega območja

T. Globina plovbenega območja v plovbeni odprtini

Opomba:
zmanjšati svetlo višino plovbene odprtine za 10cm



A. Water level at water gauge

1. Vertical bridge clearance to middle of navigation bridge span

2. Vertical bridge clearance at the fairway side

T. Fairway depth in navigation bridge span

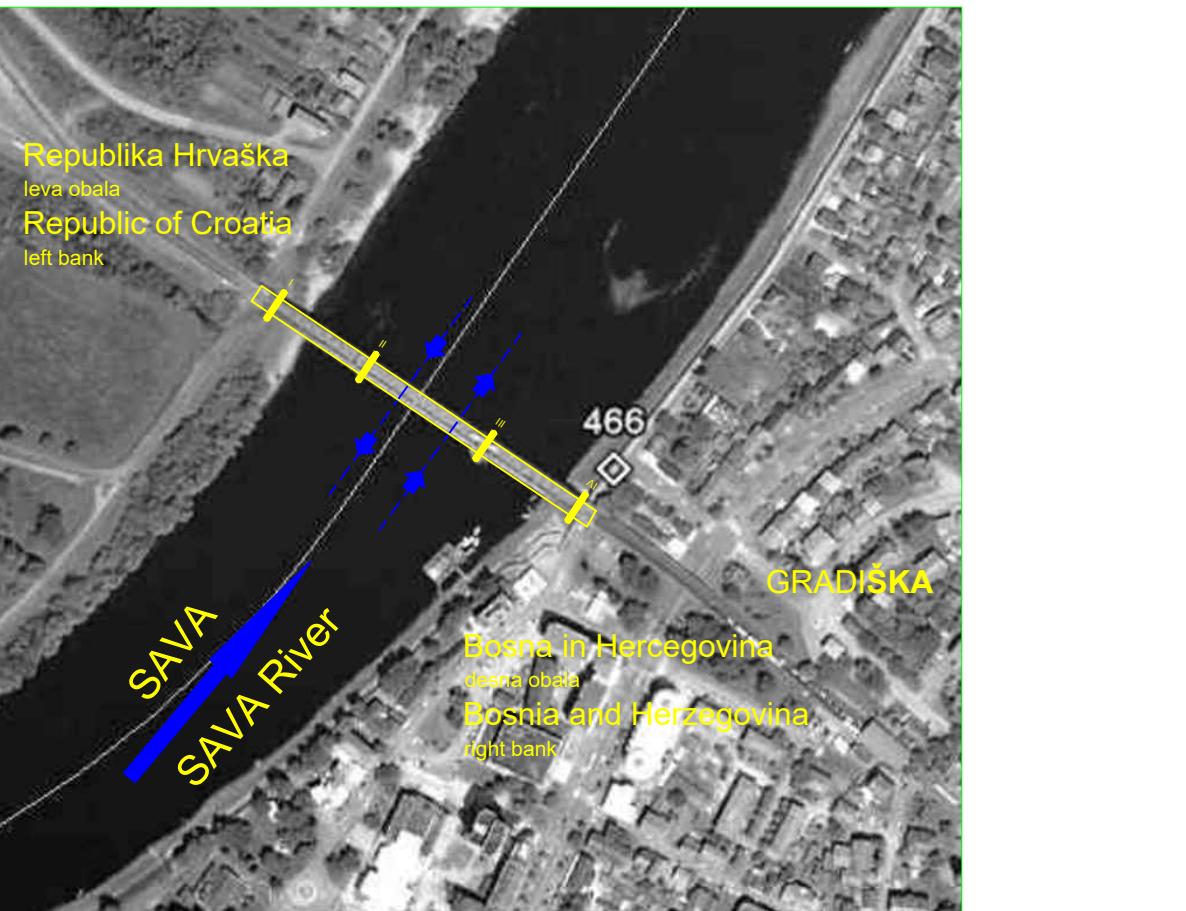
Remark:
Vertical clearance should be lowered for 10cm

Cestni most Gradiška, Sava, rkm 466.8

Merodajna vodomerna postaja Davor, rkm 432.8, kota "0"=82.59 m.n.m.

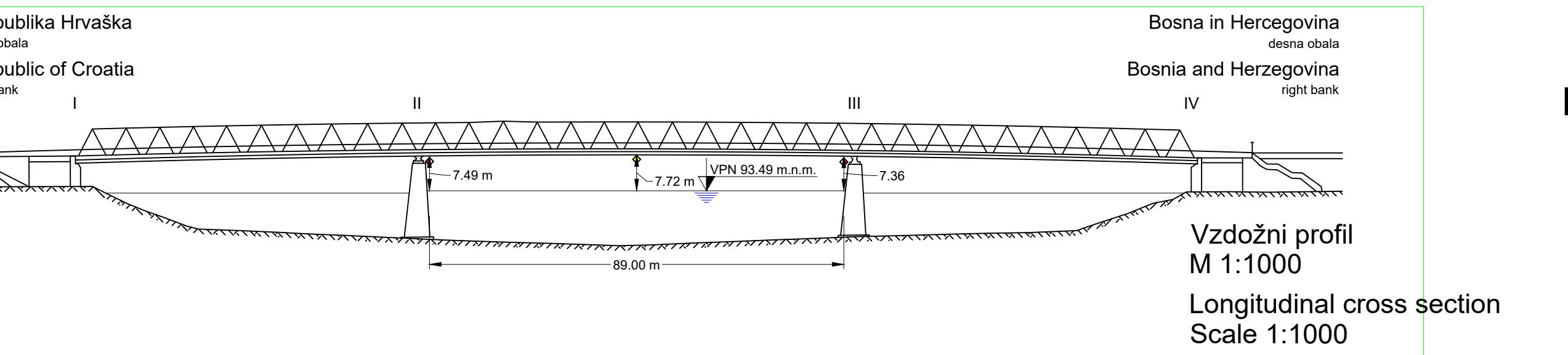
Road bridge Gradiška, Sava River, rkm 466.8

Referentna vodomerna postaja Davor, rkm 423.8, voda na visini "0"=82.59 m.a.s.l.



Situacija
M 1:5000
Layout
Scale 1:5000

SAVAN
SAVA River
GRADIŠKA
Bosna in Hercegovina
desna obala
Bosnia and Herzegovina
right bank



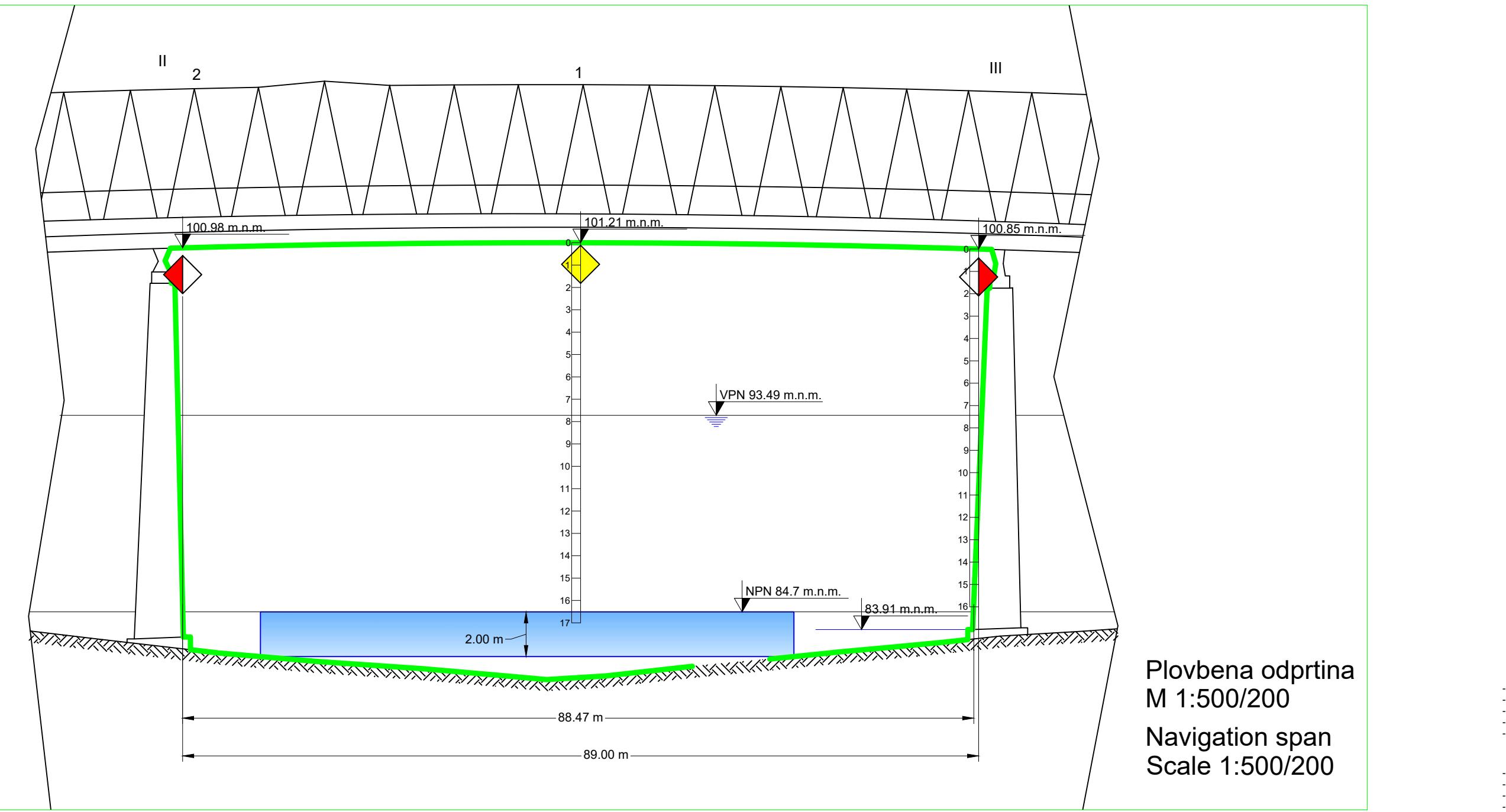
A. Nivo vode na vodomerni postaji

1. Svetla višina v sredini plovbene odprtine

2. Svetla višina na robu plovbenega območja

T. Globina plovbenega območja v plovbeni odprtini

Opomba:
zmanjšati svetlo višino plovbene odprtine za 10cm



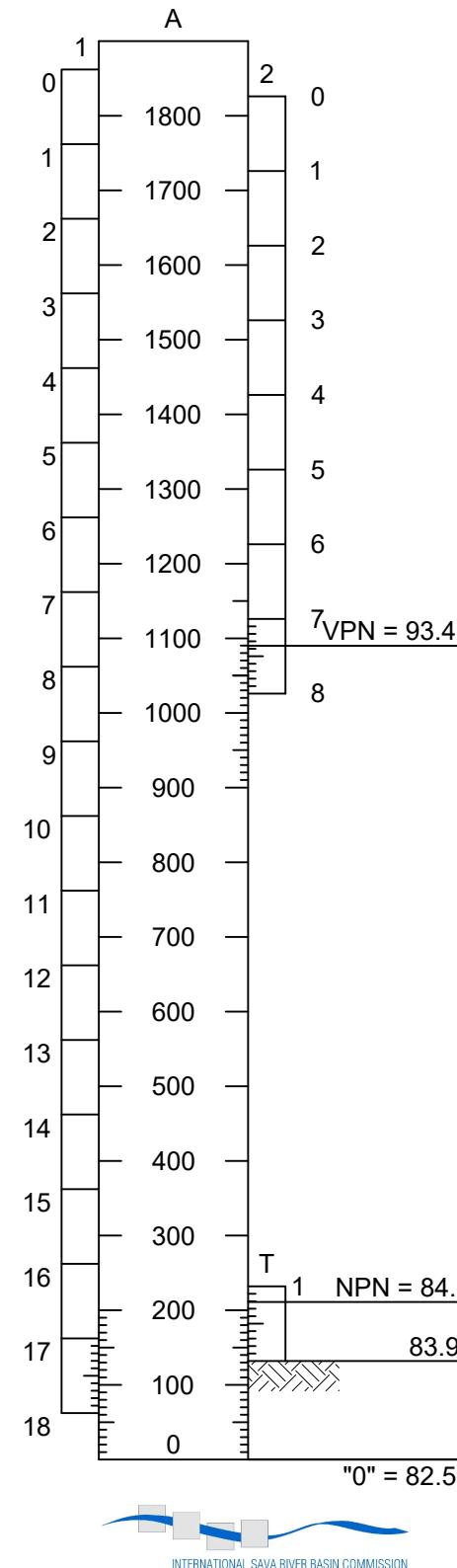
A. Water level at water gauge

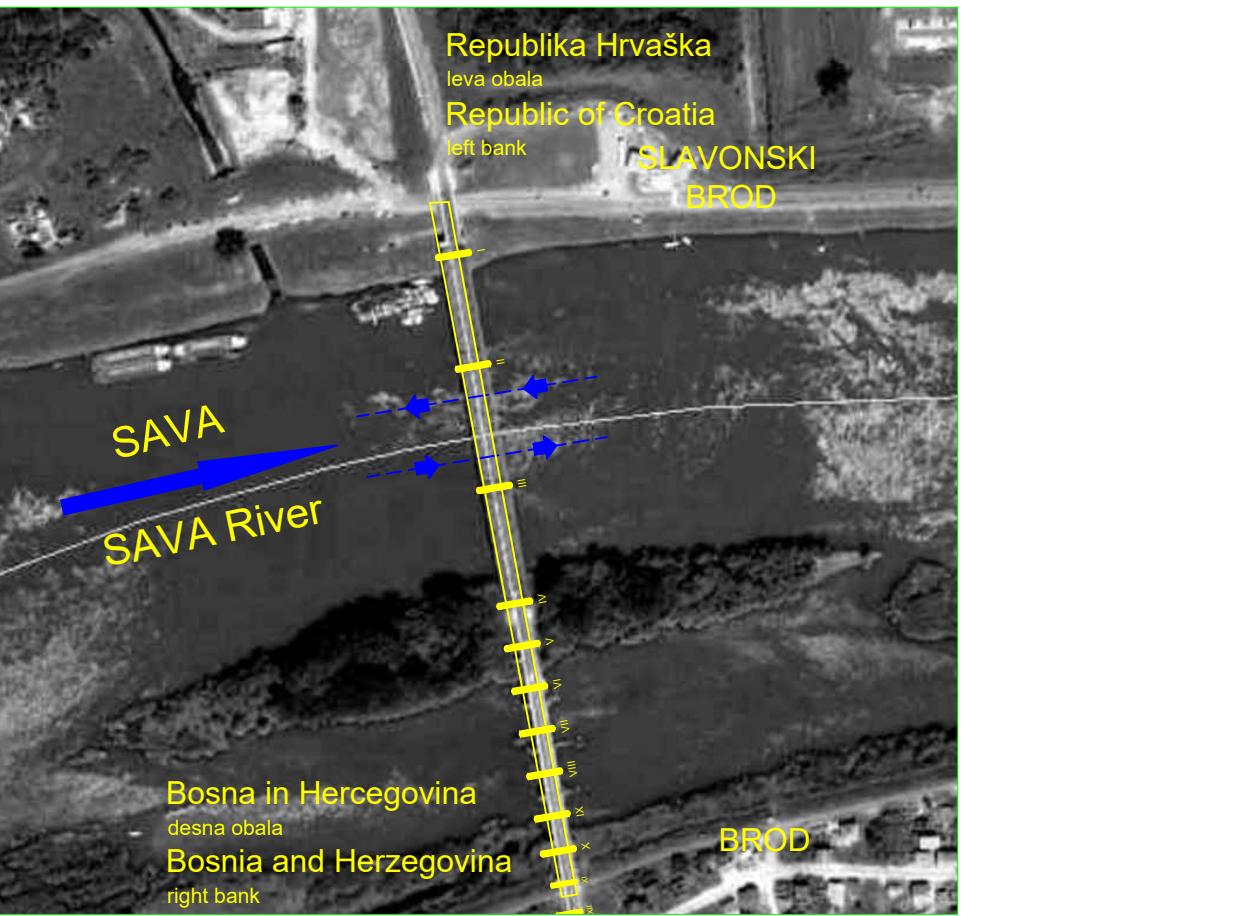
1. Vertical bridge clearance to middle of navigation bridge span

2. Vertical bridge clearance at the fairway side

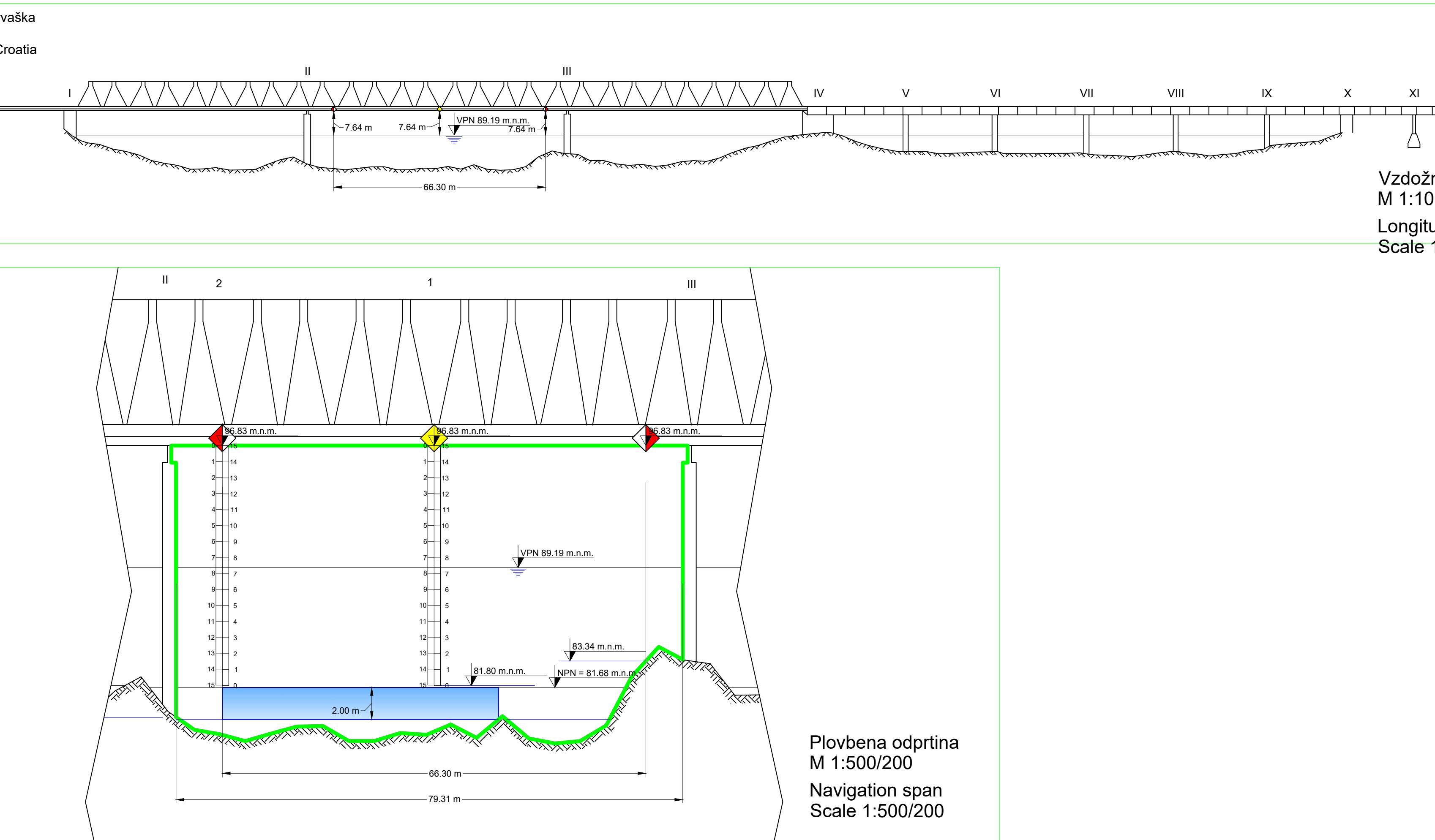
T. Fairway depth in navigation bridge span

Remark:
Vertical clearance should be lowered for 10cm





cija
6000
ut
e 1:5000



The logo for Bosna in H. consists of the word "Bosna" above "in H." in a stylized font. Below the text is a horizontal bar divided into four segments by vertical lines. A small, inverted triangle hangs from the center of the fourth segment.

Merodajna vodomerna postaja Slavonski Brod, rkm 371.3, kota "0"=811.80 m.

Road bridge Brod, Sava River, rkm 371.5

Referent water gauge Slavonski Brod, rkm 371.3, water level "0"=81.80

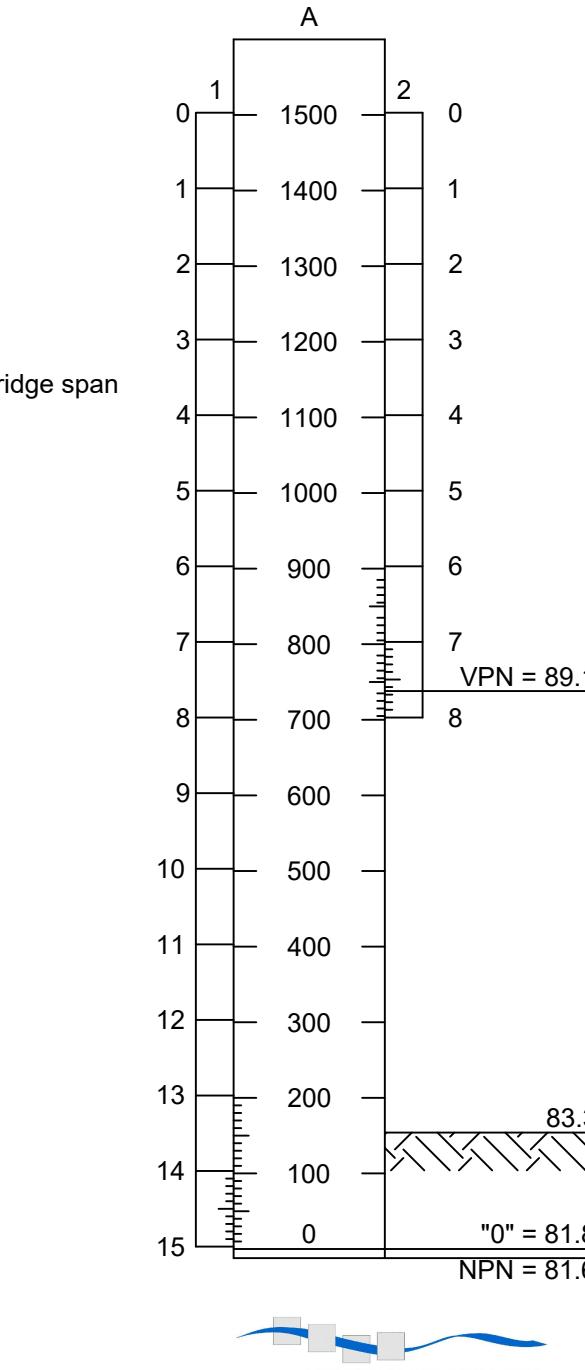
- A. Nivo vode na vodometu
 - 1. Svetla višina v sredini
 - 2. Svetla višina na robu

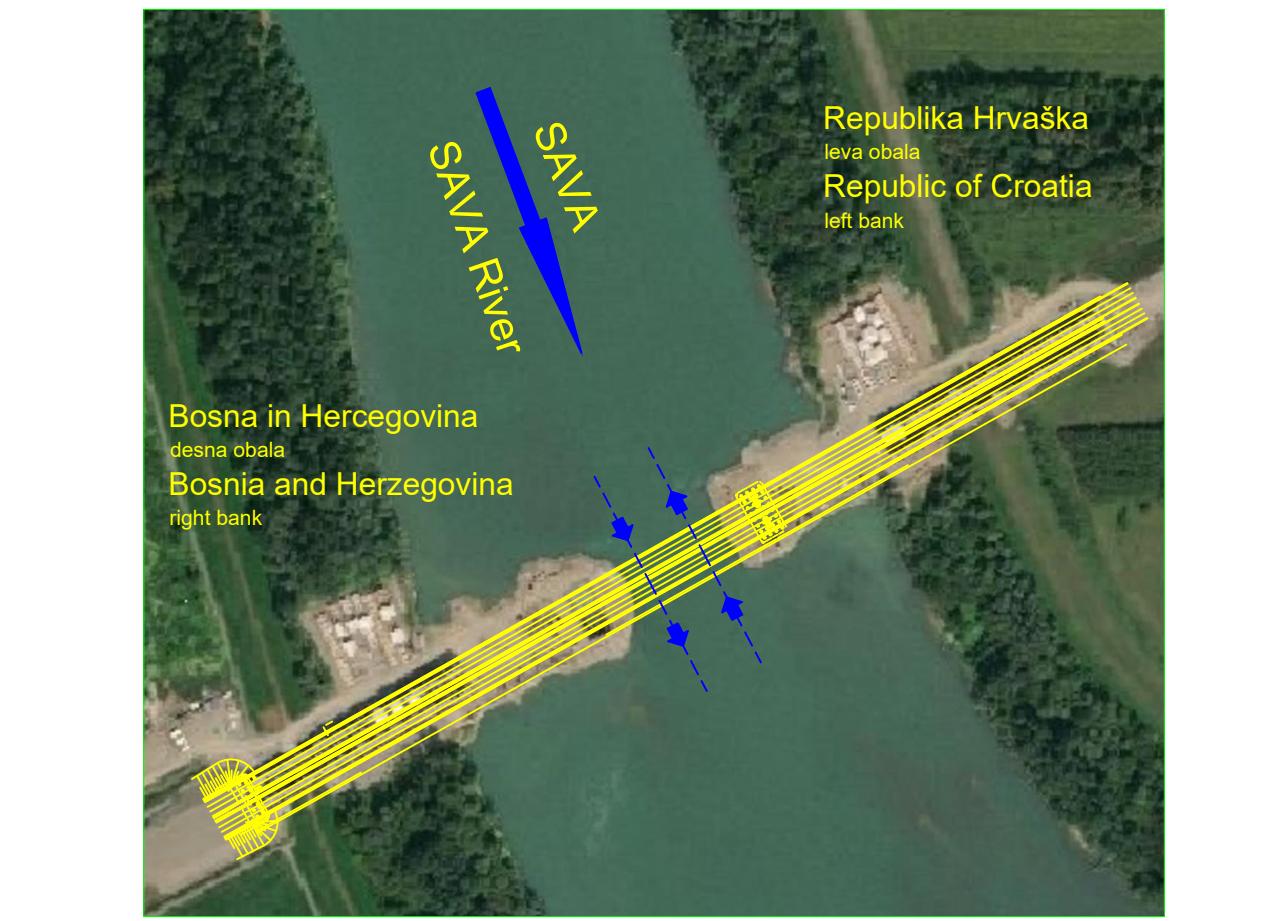
T. Globina plovbenega

Opomba:
zmanjšati svetlo viši

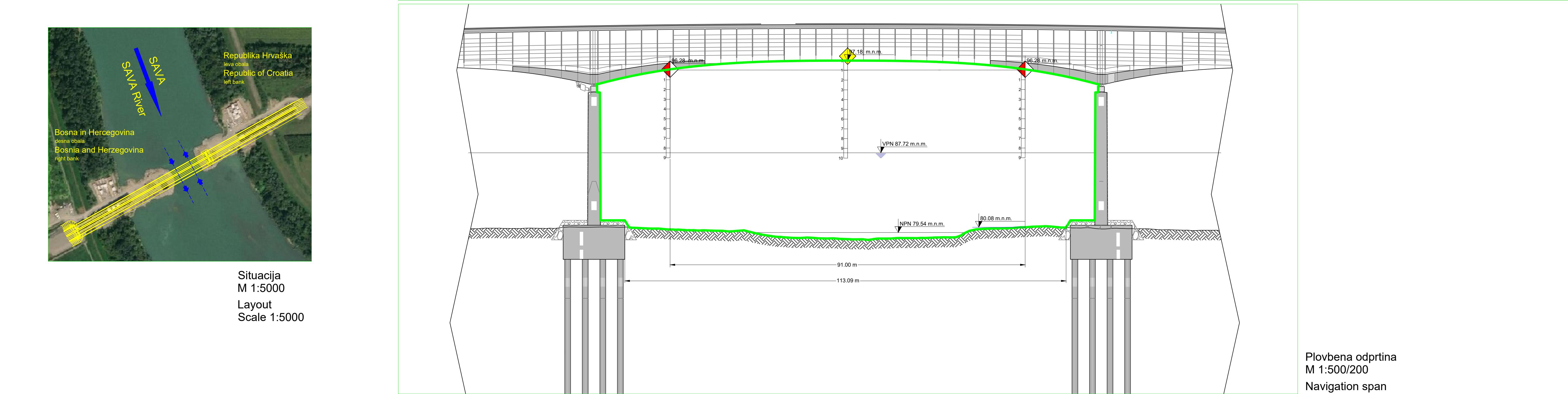
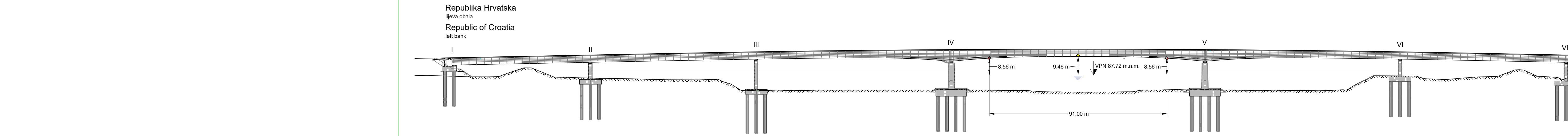
- A. Water level at water gauge
 - 1. Vertical bridge clearance to middle of navigation channel
 - 2. Vertical bridge clearance at the fairway
 - T. Fairway depth in navigation bridge span

Remark:
Vertical clearance



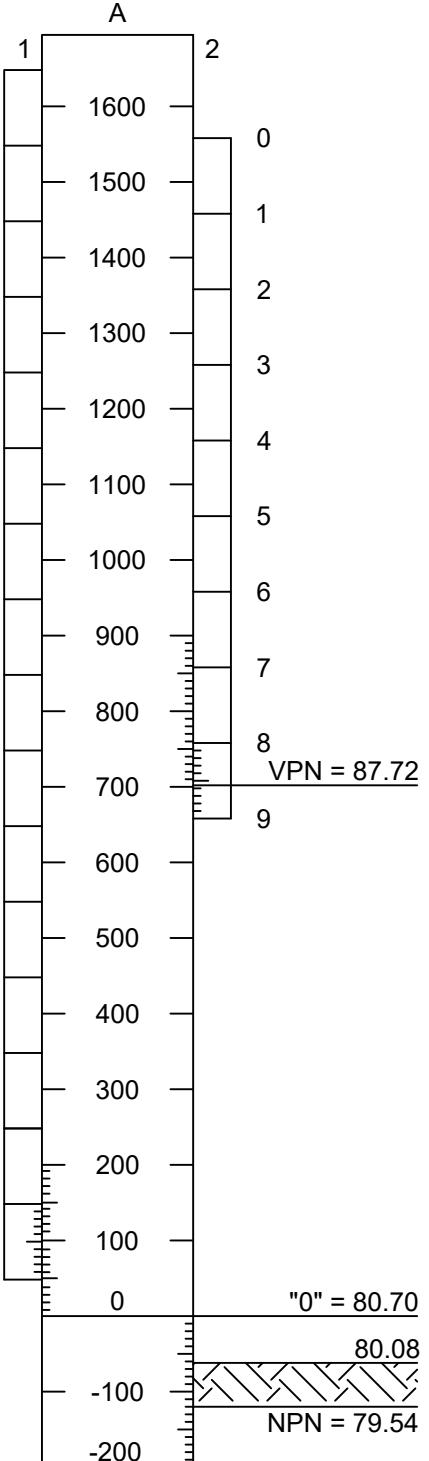


Situacija
M 1:5000
Layout
Scale 1:5000



Cestovni most Svilaj, Sava, rkm 329.1
Referentna vodomerna postaja Slavonski šamac, rkm 314.5, kota "0"=80.70 m.a.s.l.

Road bridge Svilaj, Sava River, rkm 329.1
Referent water gauge Slavonski šamac, rkm 314.5, water level "0"=80.70 m.a.s.l.

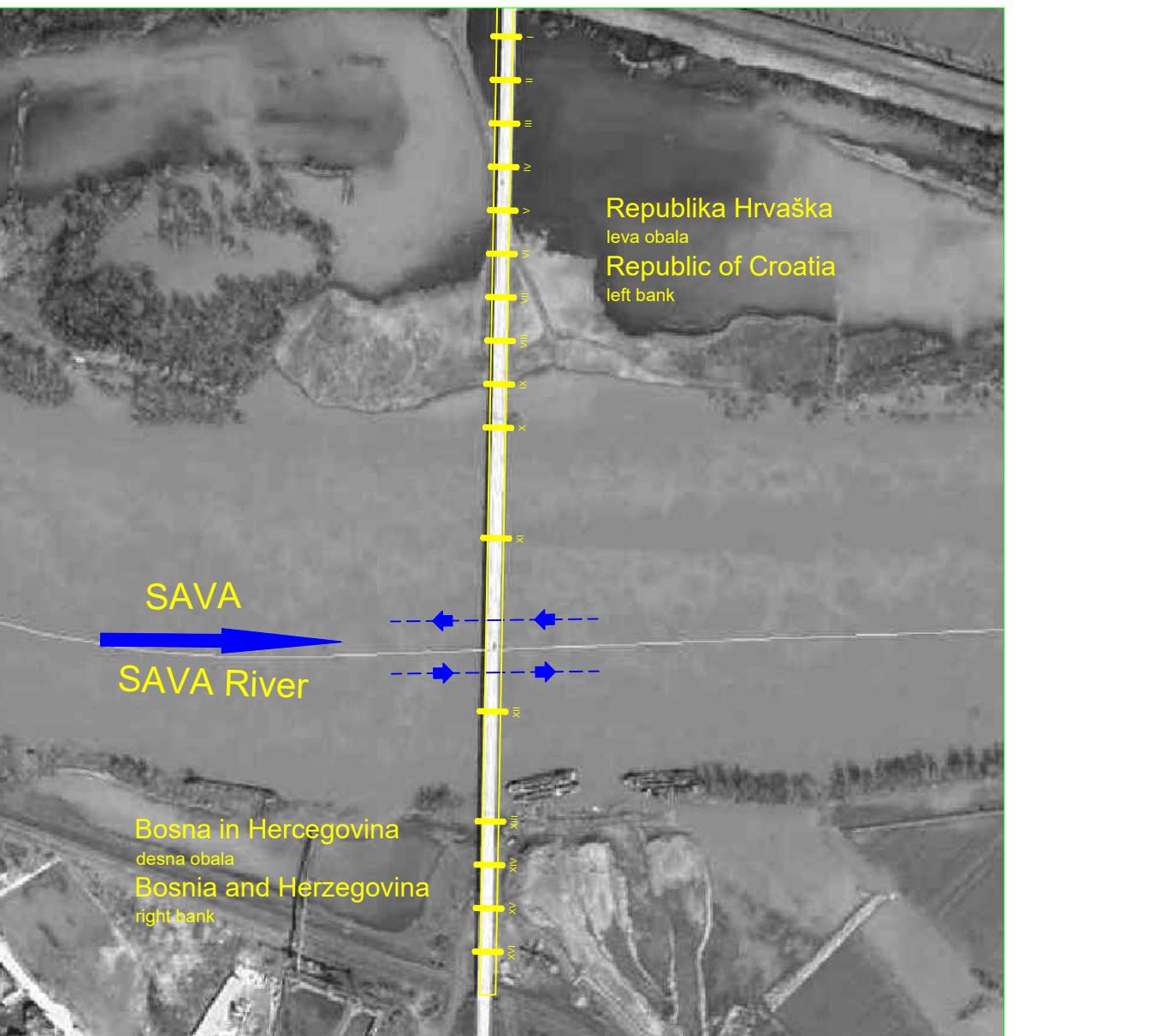


Cestni most Županja, Sava, rkm 261.6

Merodajna vodomerna postaja Županja, rkm 267.5, kota "0"=76.28 m.n.m.

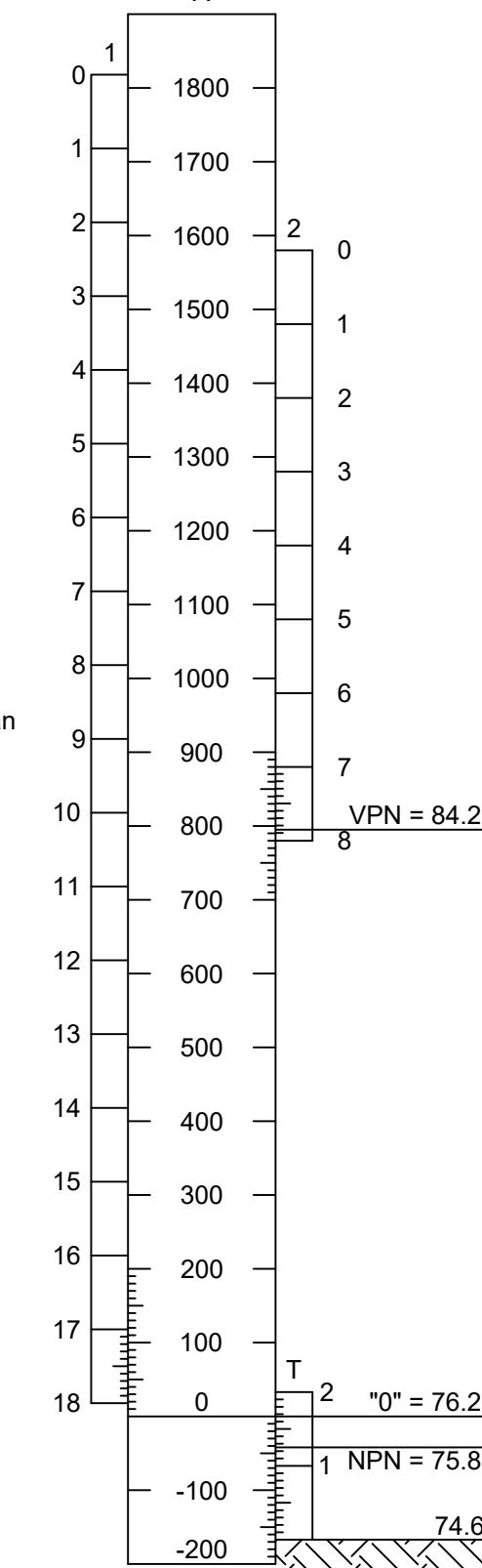
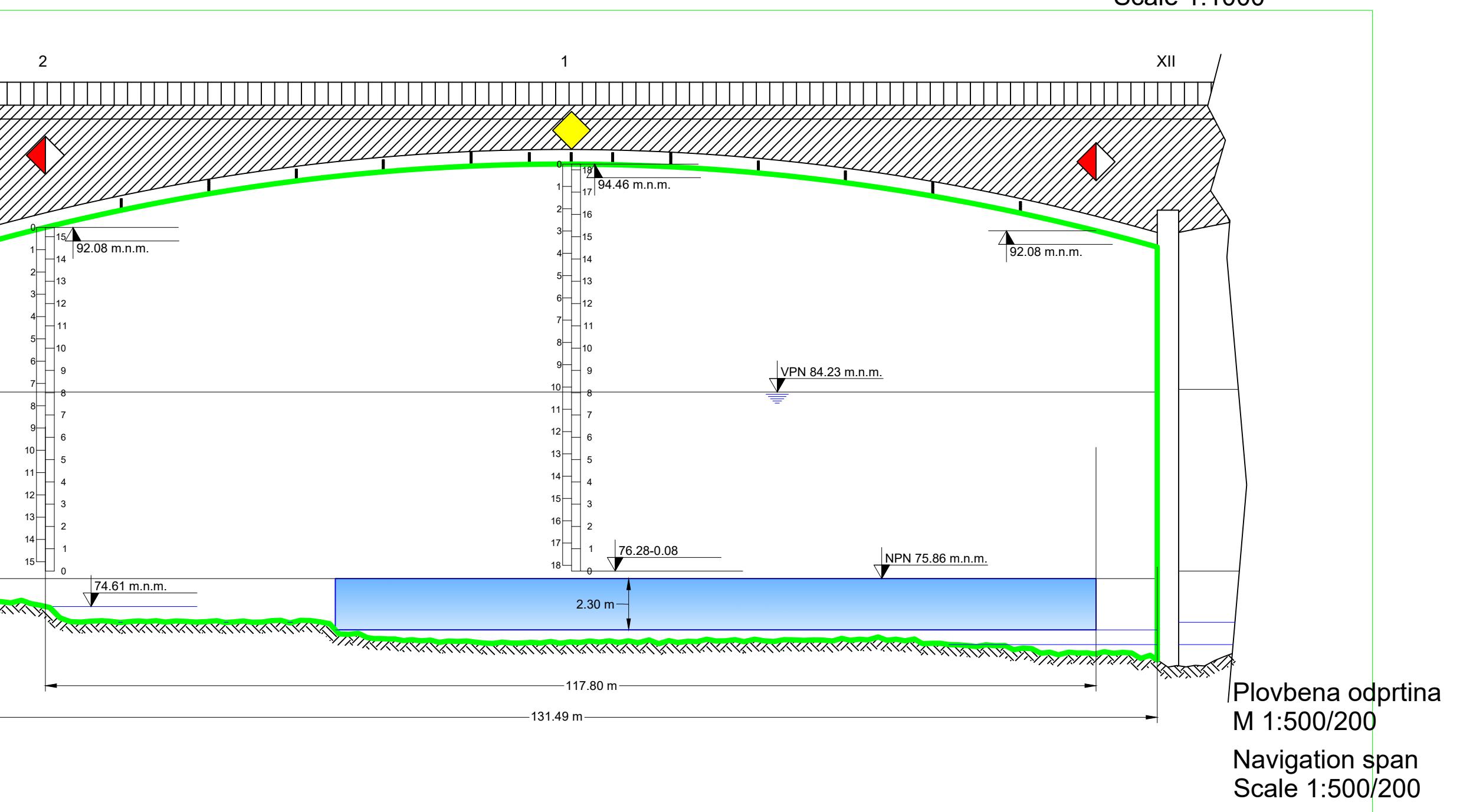
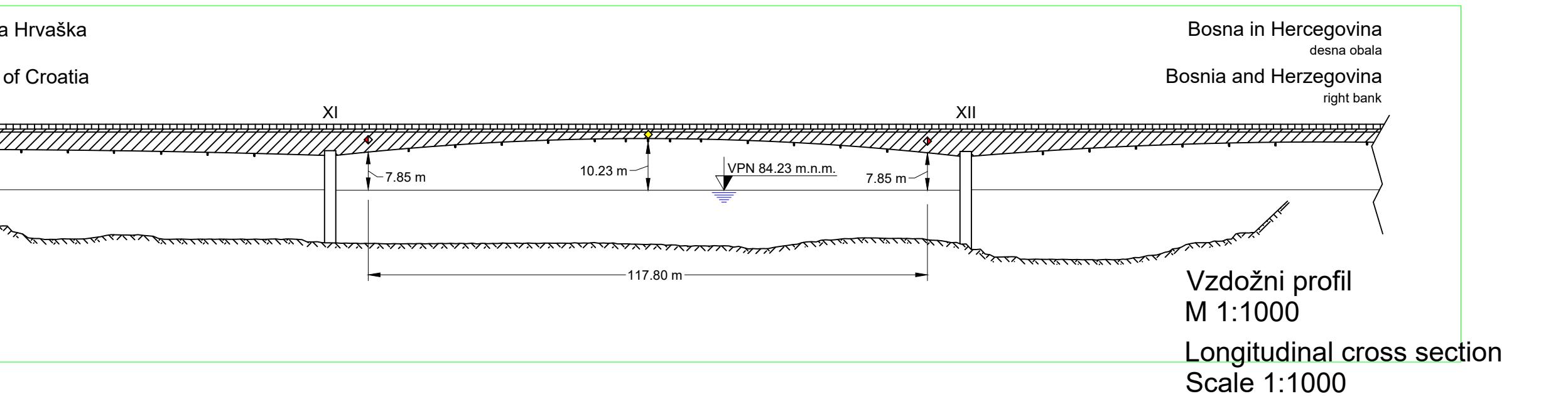
Road bridge Županja, Sava River, rkm 261.6

Referentna vodomerna postaja Županja, rkm 267.5, voda "0"=76.28 m.a.s.l.



Situacija
M 1:5000
Layout
Scale 1:5000

VPN = visoki plovbeni nivo v profilu mosta
NPN = nizki plovbeni nivo v profilu mosta
vse kote so v m.n.m.
prečni profil v mostni odprtini odgovira prečnemu profilu na 70m dolvodno od mosta, snemano 2009
podatki o gabaritih stebrov in temeljih stebrov mostov niso zanesljivi

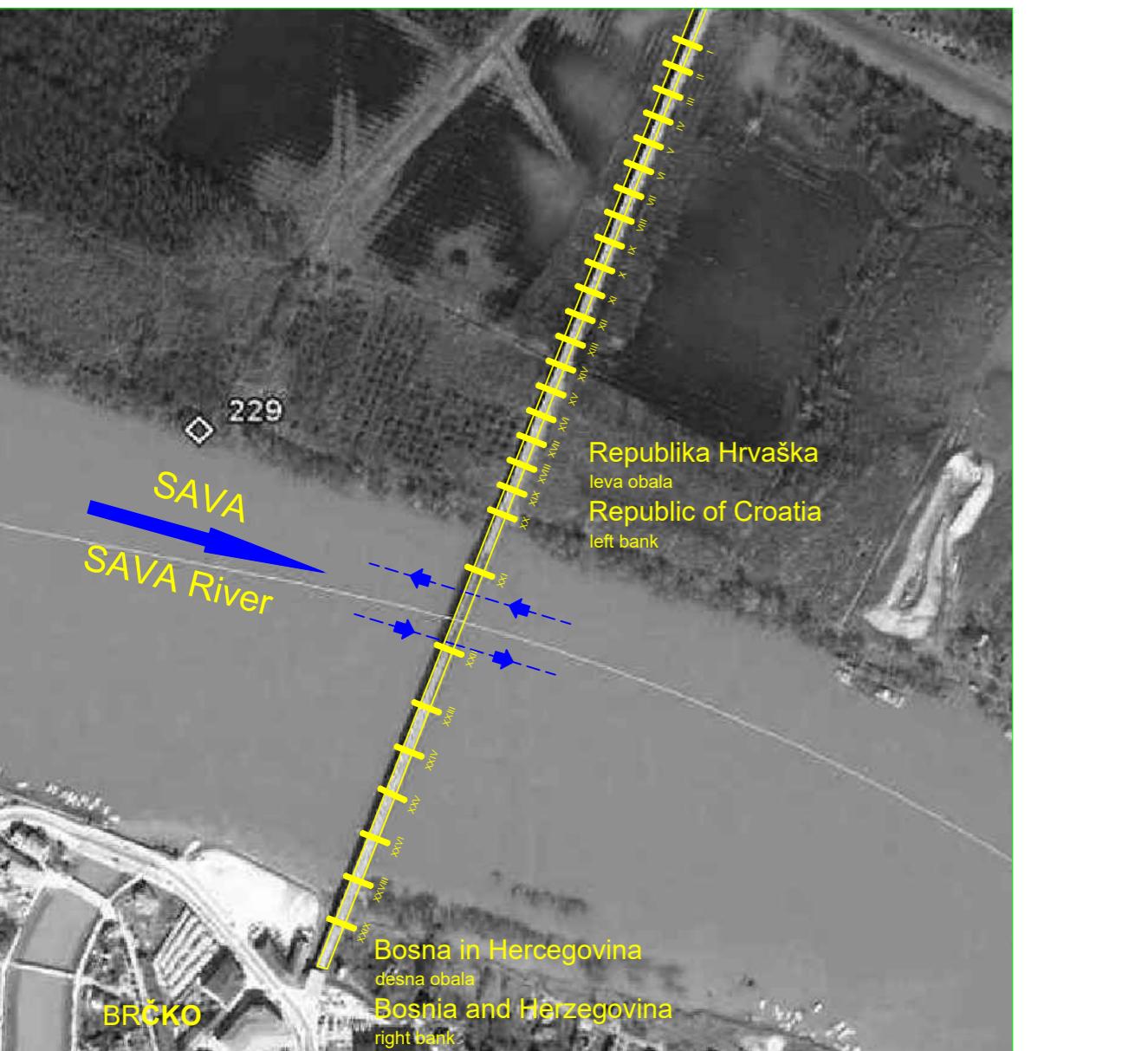


Cestni most Gunja, Sava, rkm 228.8

Merodajna vodomerna postaja Gunja, rkm 228.8, kota "0"=74.32 m.n.m.

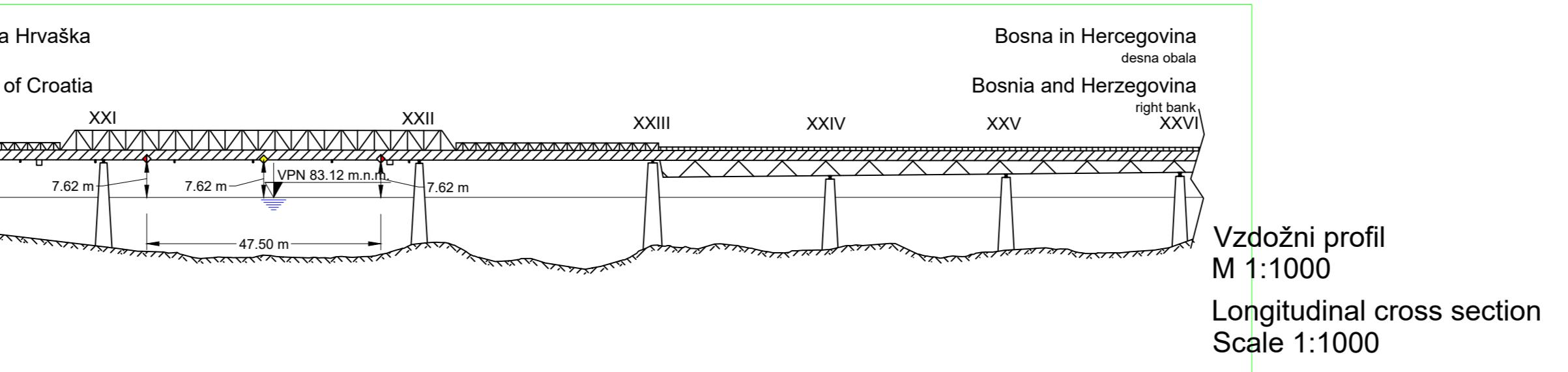
Road bridge Gunja, Sava River, rkm 228.8

Referent water gauge Gunja, rkm 228.8, water level "0"=74.32 m.a.s.l.

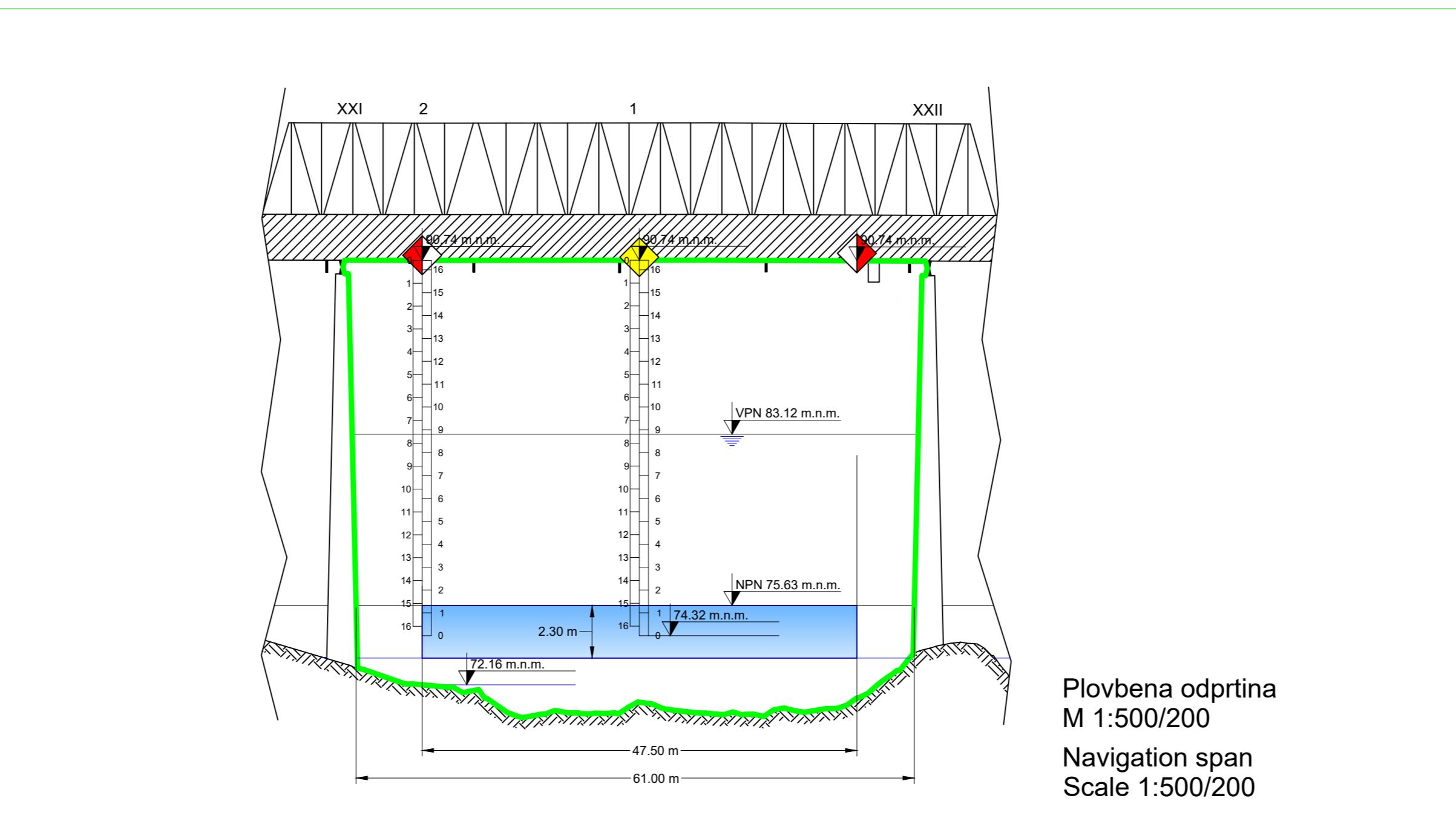


Situacija
M 1:5000
Layout
Scale 1:5000

INTERNATIONAL SAVA RIVER BASIN COMMISSION



Vzdožni profil
M 1:1000
Longitudinal cross section
Scale 1:1000



Plovbena odprtina
M 1:500/200
Navigation span
Scale 1:500/200

A. Nivo vode na vodomerni postaji

1. Svetla višina v sredini plovbene odprtine

2. Svetla višina na robu plovbenega območja

T. Globina plovbenega območja v plovbeni odprtini

Opomba:

zmanjšati svetlo višino plovbene odprtine za 10cm;
v plovbeni odprtini izven označenega plovbenega območja s spodnjega roba konstrukcije so nameščene železne stopnice višine 100cm.

A. Water level at water gauge

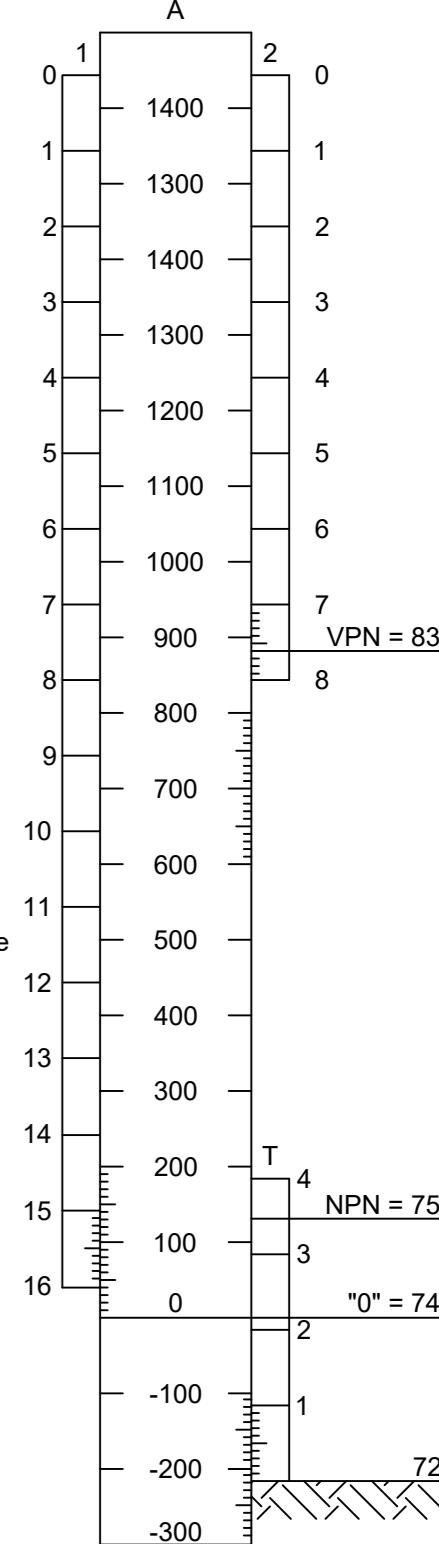
1. Vertical bridge clearance to middle of navigation bridge span

2. Vertical bridge clearance at the fairway side

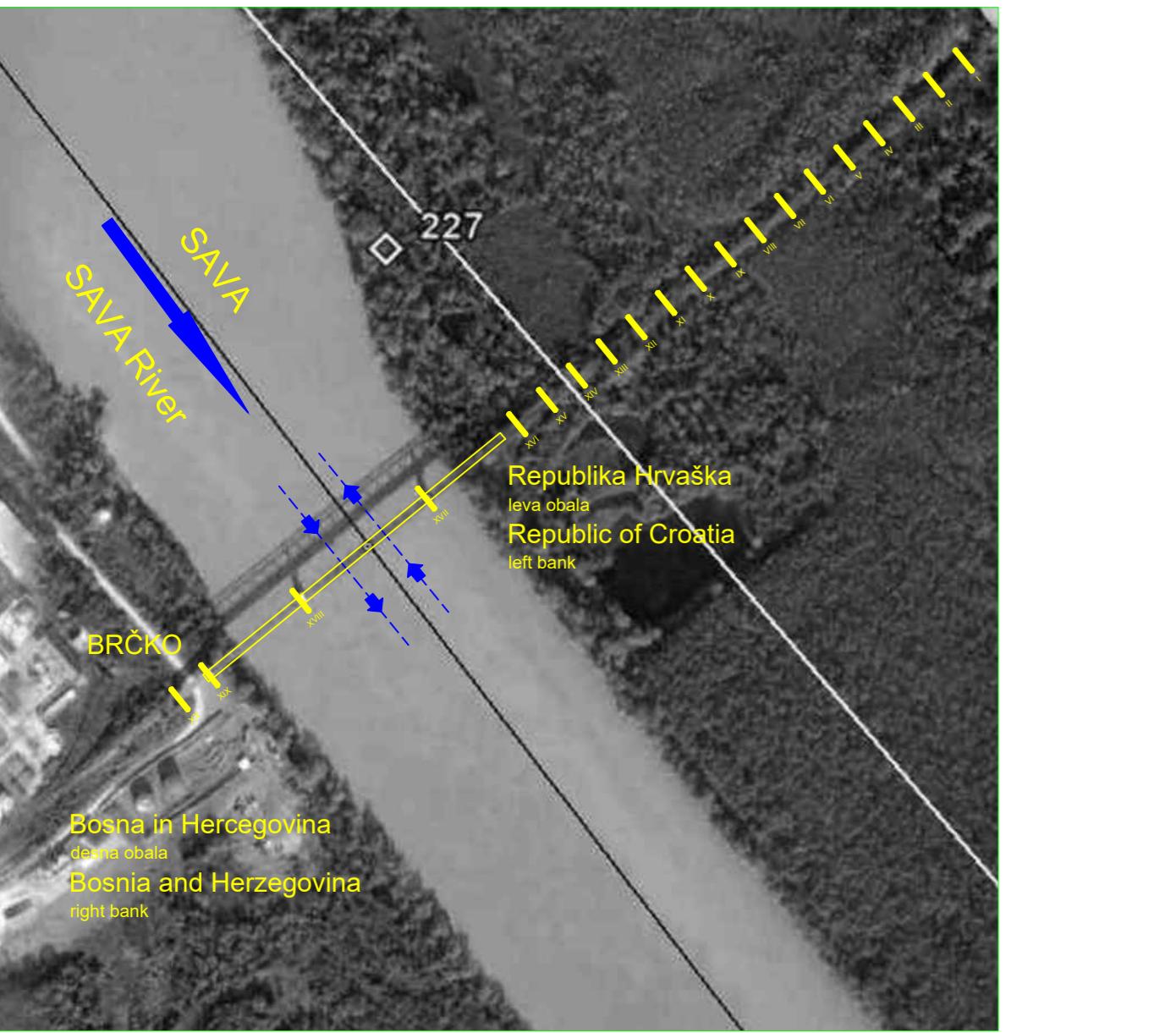
T. Fairway depth in navigation bridge span

Remark:

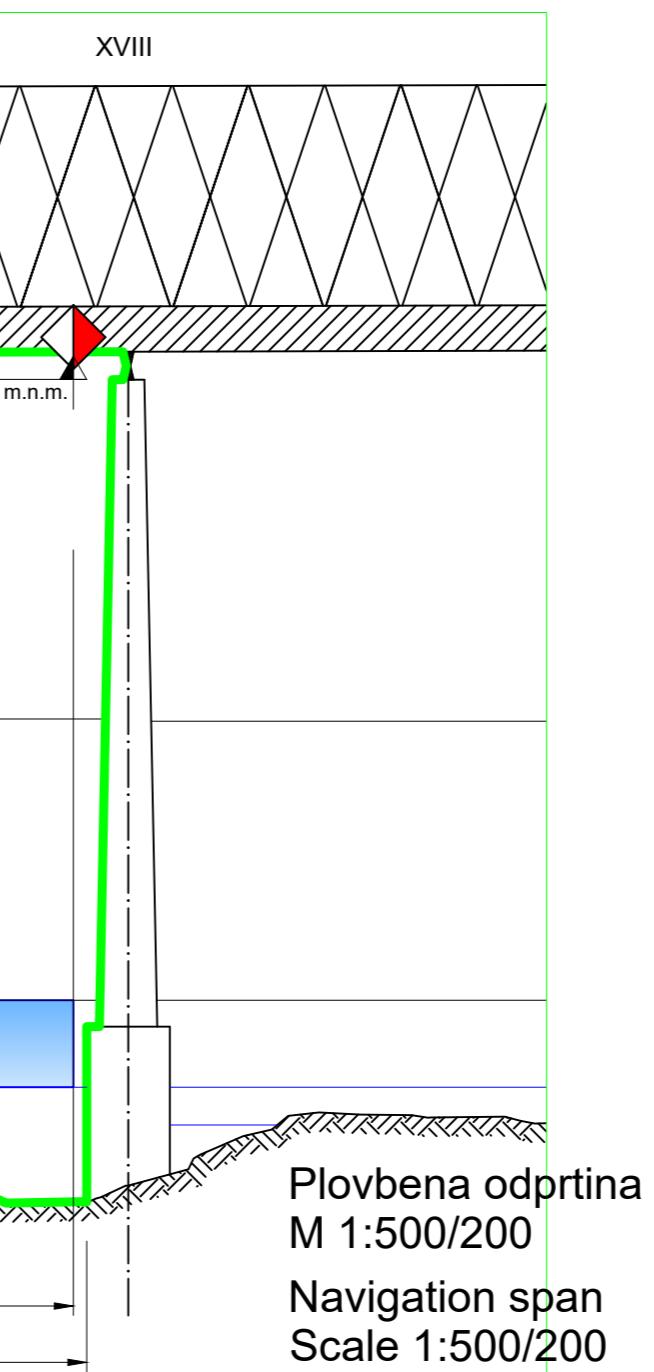
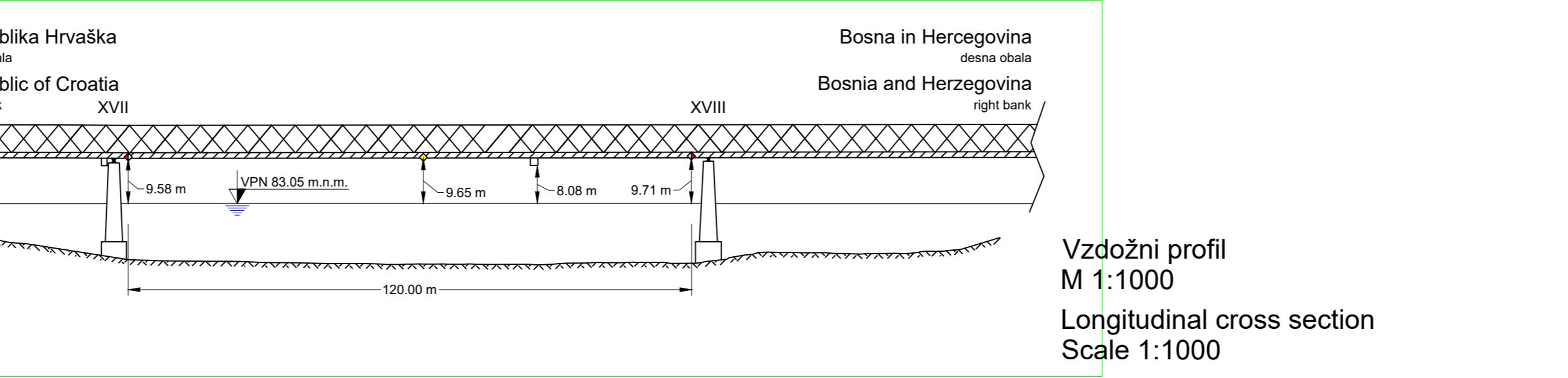
Vertical clearance should be lowered for 10cm
There is, in navigation span, outside of marked fairway, below the lower edge of bridge construction, 100 cm high iron stairs.



INTERNATIONAL SAVA RIVER BASIN COMMISSION



Situacija
M 1:5000
Layout
Scale 1:5000



Železniški most Gunja, Sava, rkm 226.8

Merodajna vodomerna postaja Gunja, rkm 228.8, kota "0"=74.32 m.n.m.

Railway bridge Gunja, Sava River, rkm 226.8

Referent vodna višina Gunja, rkm 228.8, voda na merni postaji "0" = 74.32 m.a.s.l.

A. Nivo vode na vodomerni postaji

1. Svetla višina v sredini plovbene odprtine

2. Svetla višina na robu plovbenega območja

T. Globina plovbenega območja v plovbeni odprtini

Opomba:
zmanjšati svetlo višino plovbene odprtine za 170cm
zaradi železnih stopnic, ki so nameščene na spodnjem
robu konstrukcije v plovbeni odprtini.

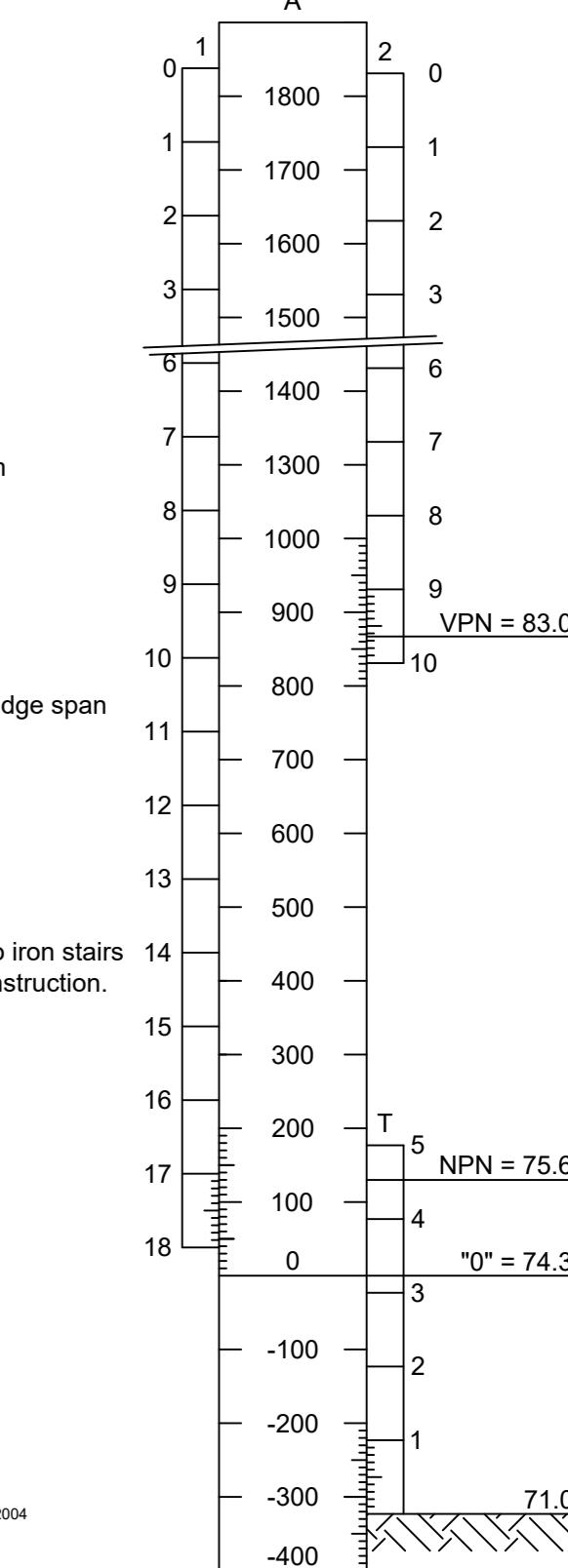
A. Water level at water gauge

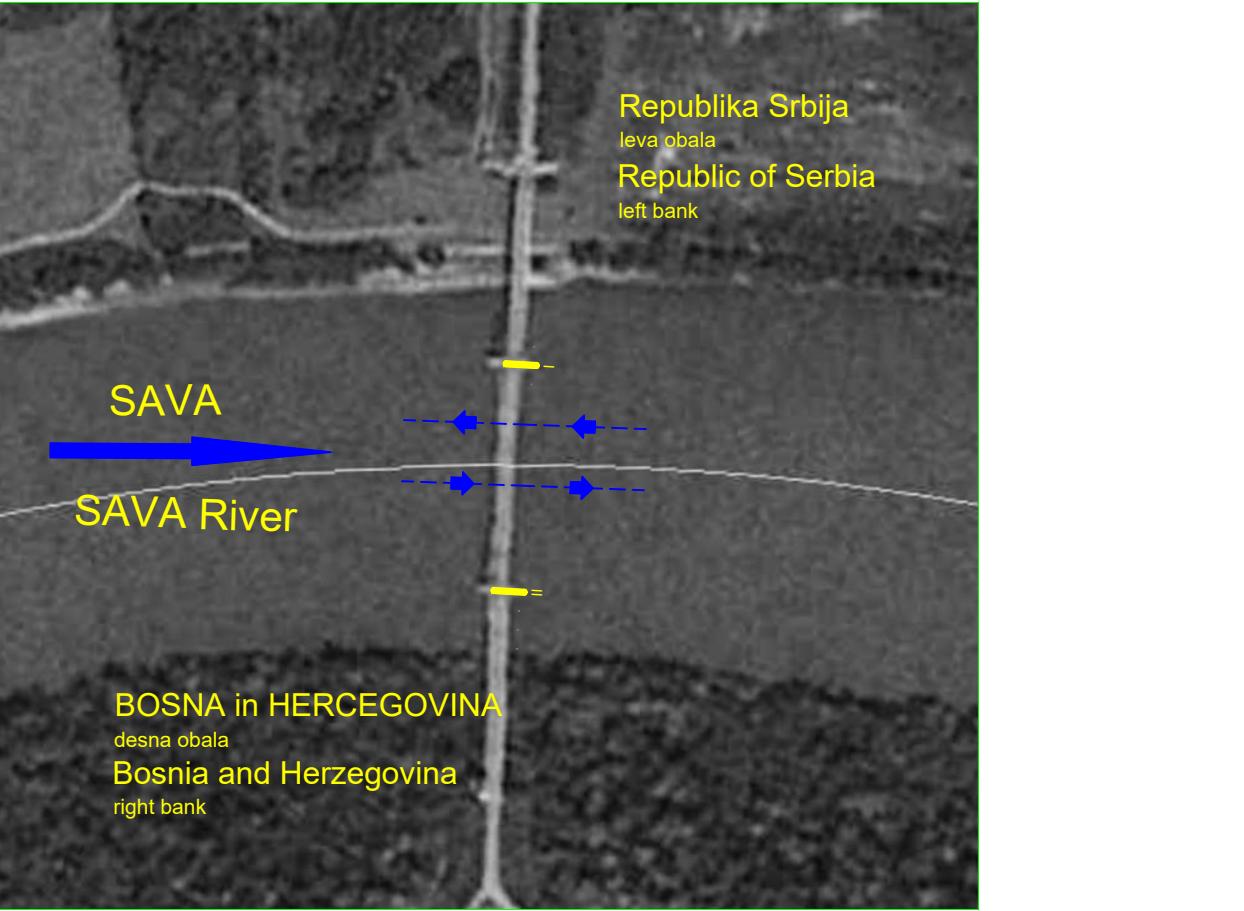
1. Vertical bridge clearance to middle of navigation bridge span

2. Vertical bridge clearance at the fairway side

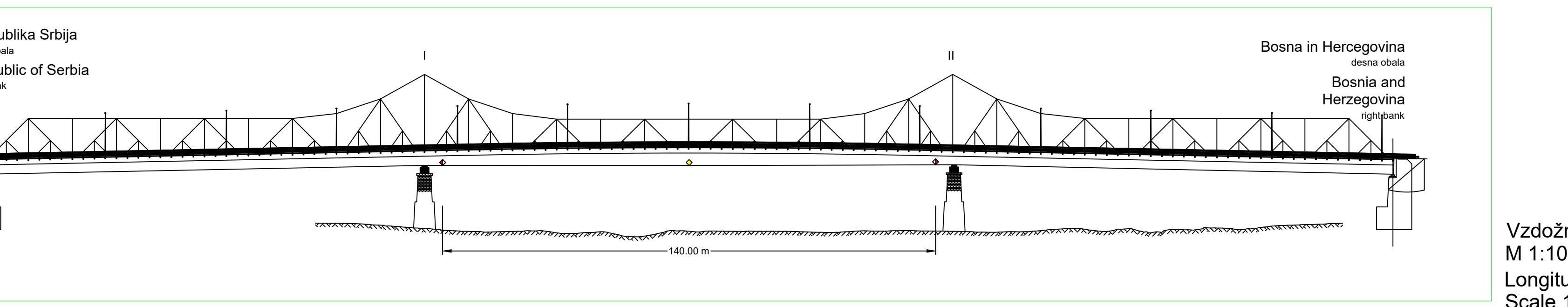
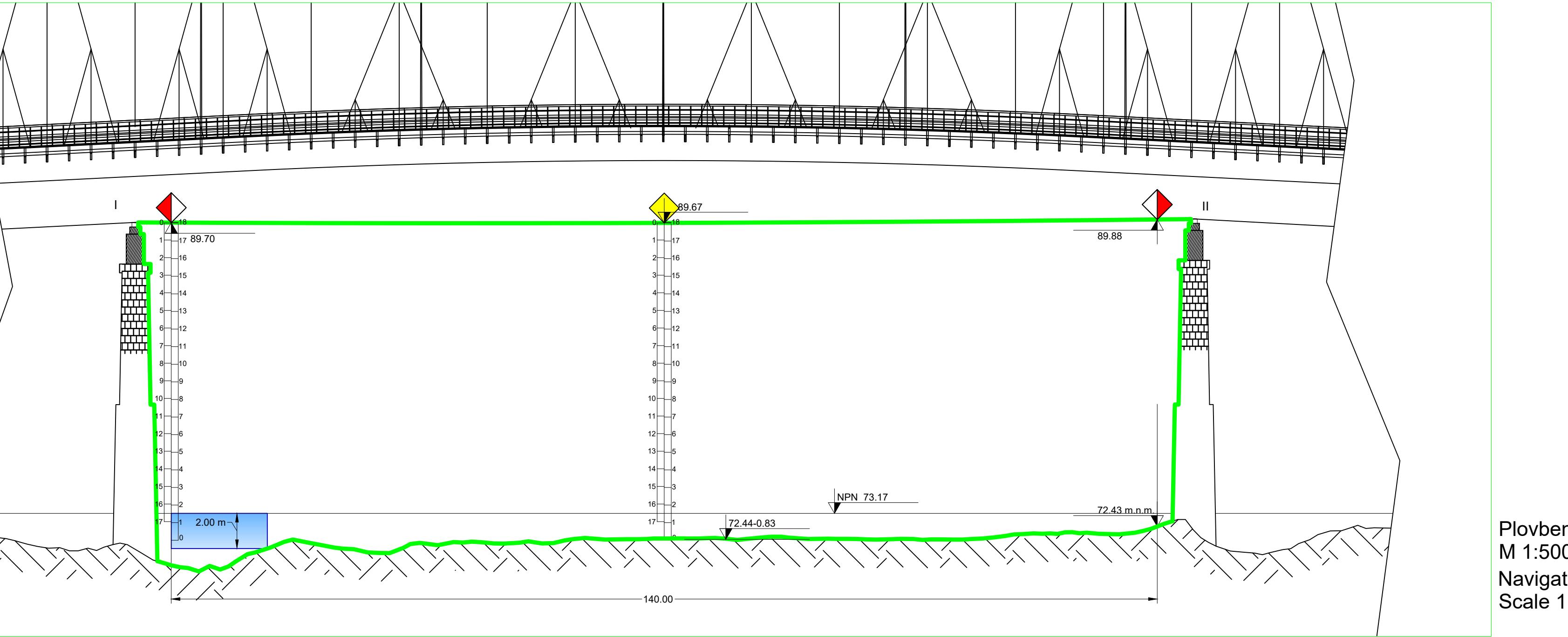
T. Fairway depth in navigation bridge span

Remark:
Vertical clearance should be lowered for 170cm due to iron stairs
in navigation span, below the lower edge of bridge construction.





Situacija
M 1:5000
Layout
Scale 1:5000

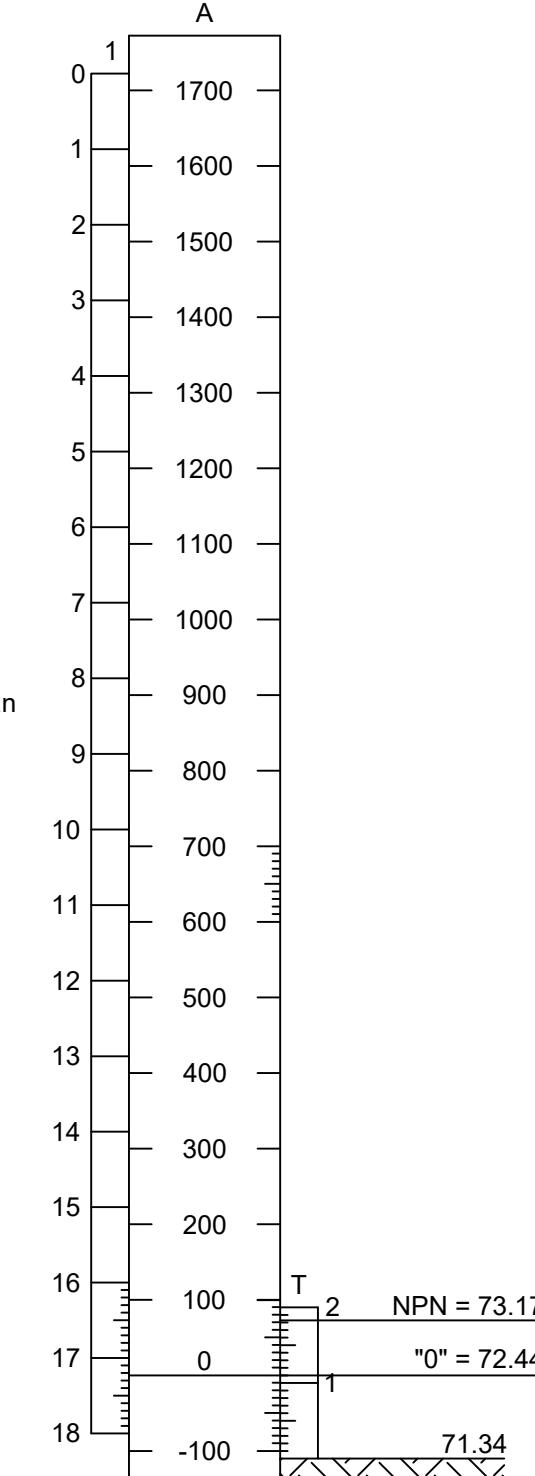


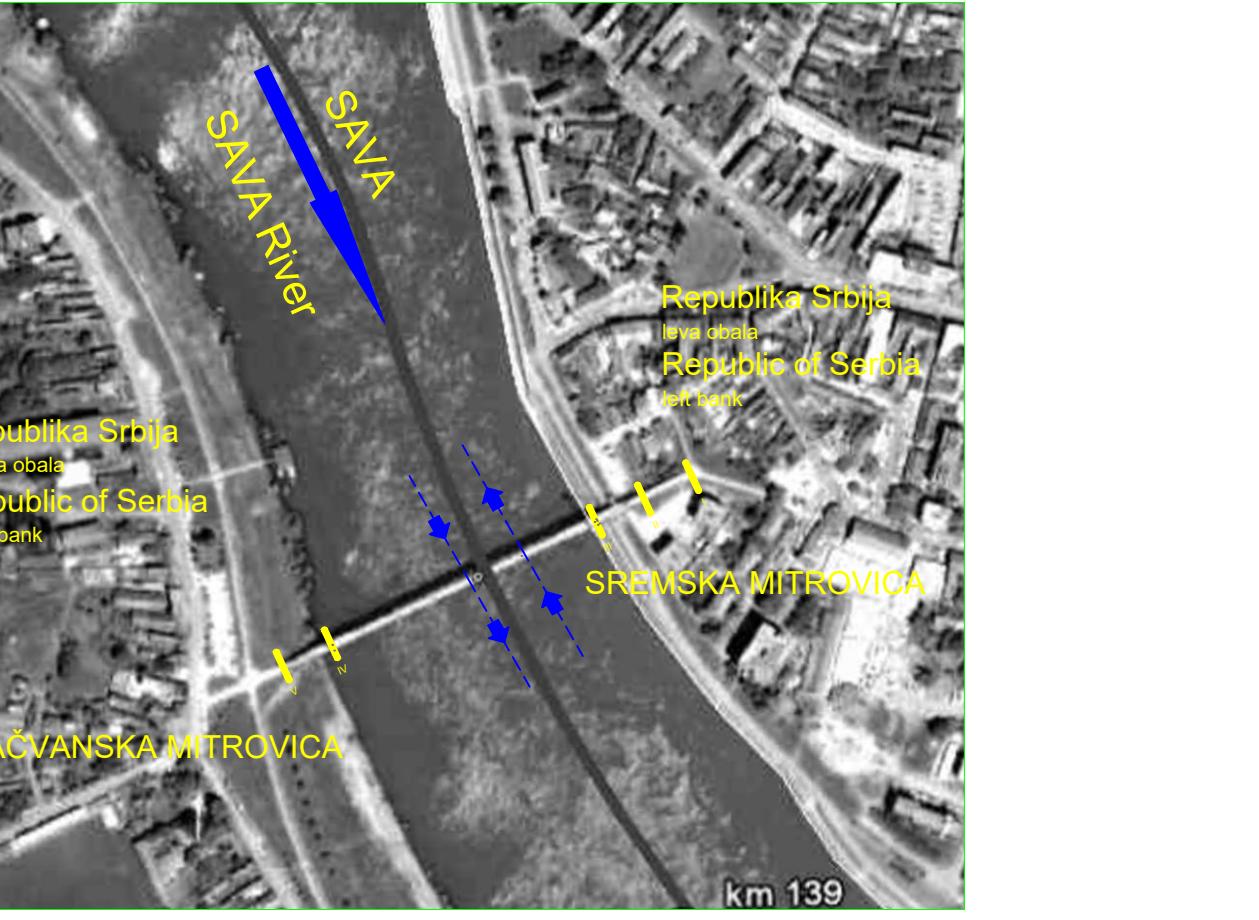
Cestno-železniški most Rača,
Sava, rkm 183.31

Merodajna vodomerna postaja Jemena, rkm 204.84, kota "0"=72.44 m.n.m

Road-railway bridge Rača,
Sava River, rkm 183.31

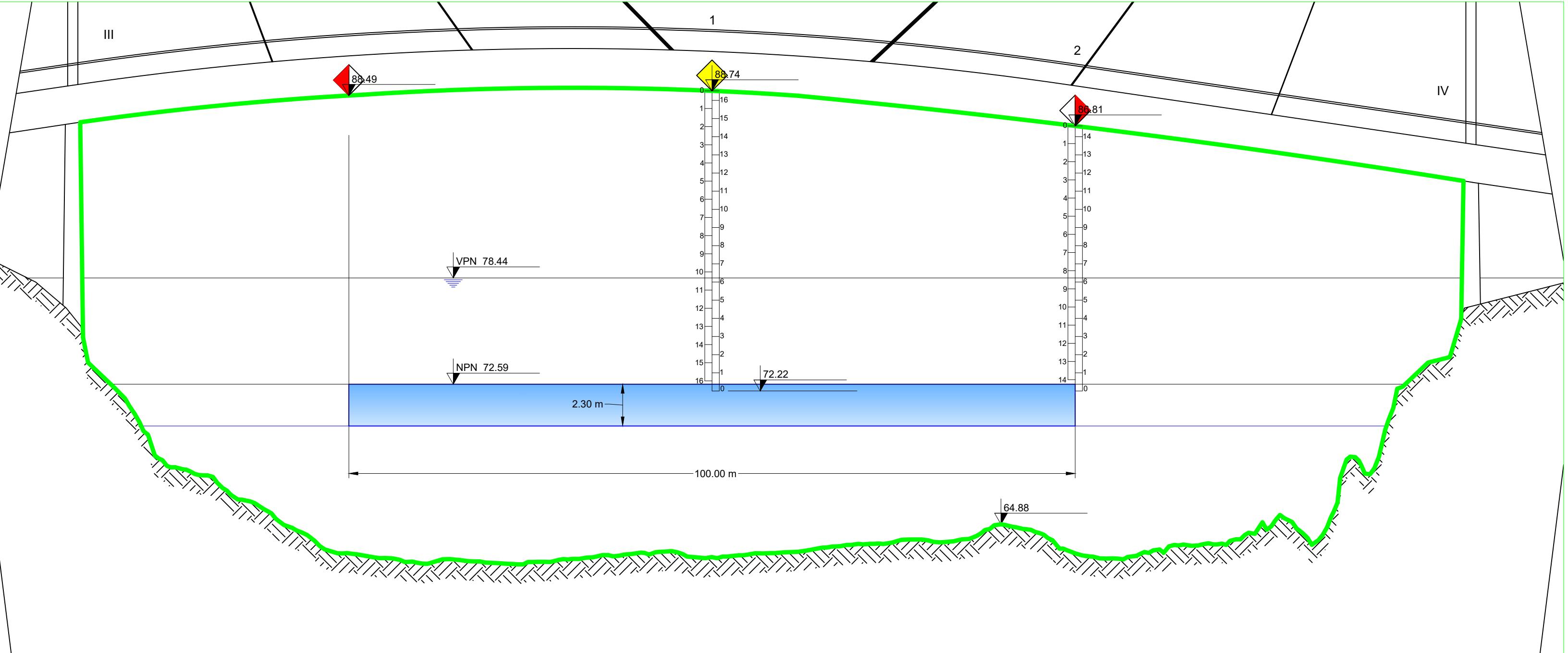
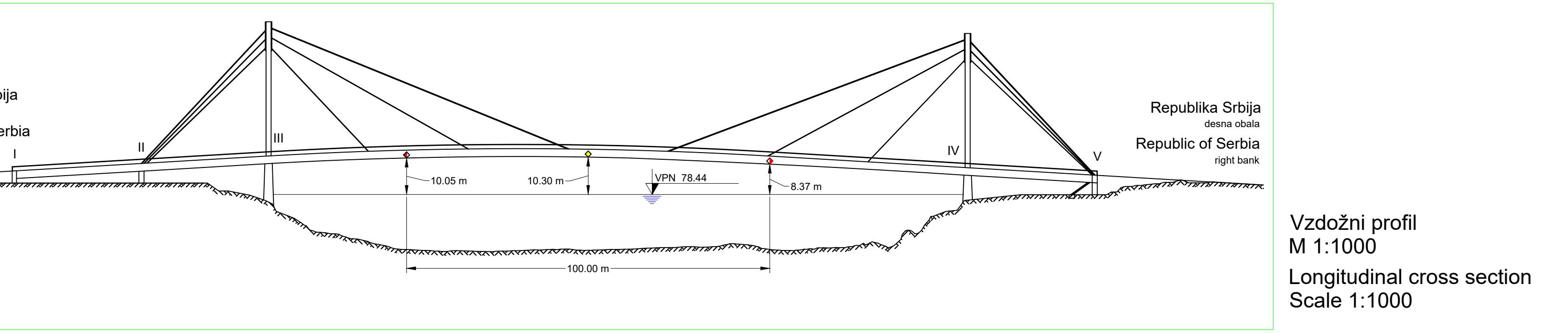
Referentna vodomerna postaja Jemena, rkm 204.84, voda na ravnini "0"=72.44m.a.s.l.





situacija
1:5000

layout
cale 1:5000



Plot
M 1
Nav
Scan

- VPN - vis
- NPN - niz
- vse kote
- prečni pr
- podatki o

00/200

- VPN - high
- NPN - low
- all levels
- bridge creation

- odprtina
- 200
- n. spop
- VPN - vis
- NPN - niz
- vse kote
- prečni pr
- podatki o

00/200

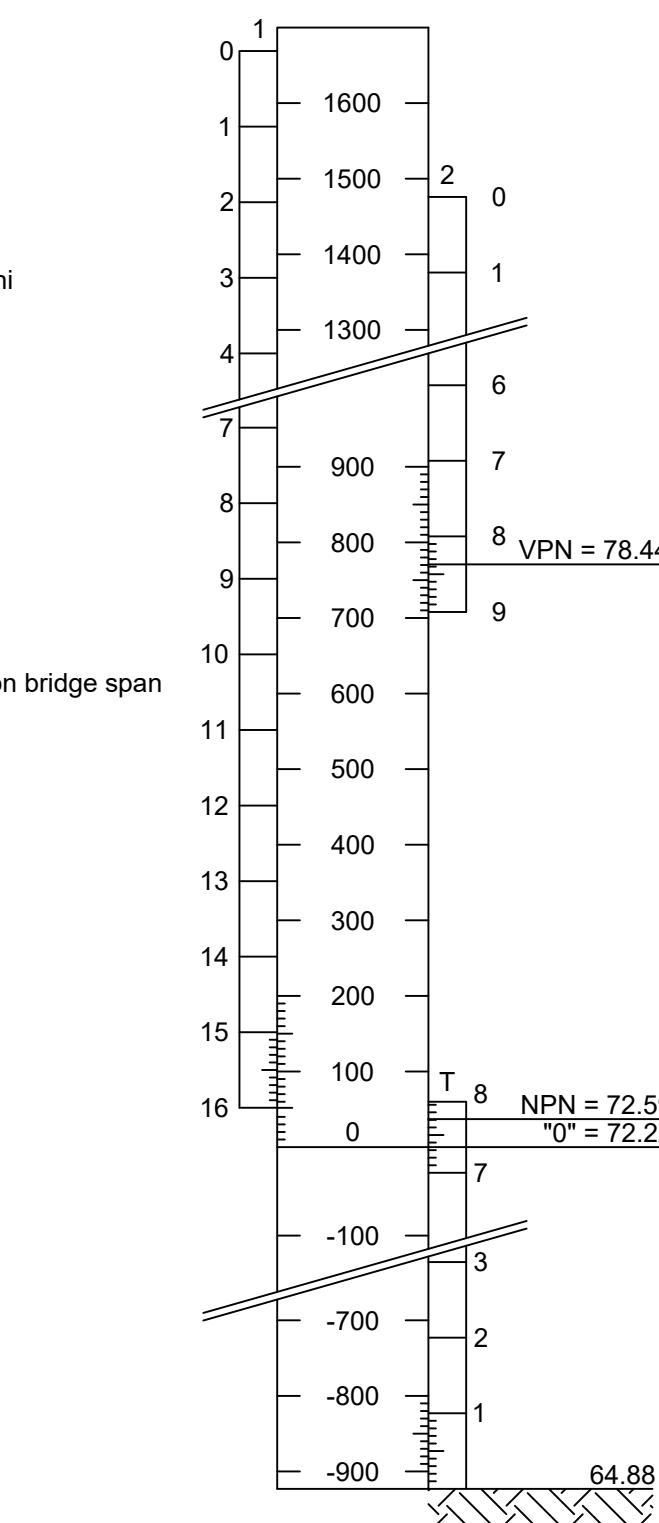
- VPN - high
- NPN - low
- all levels
- bridge creation

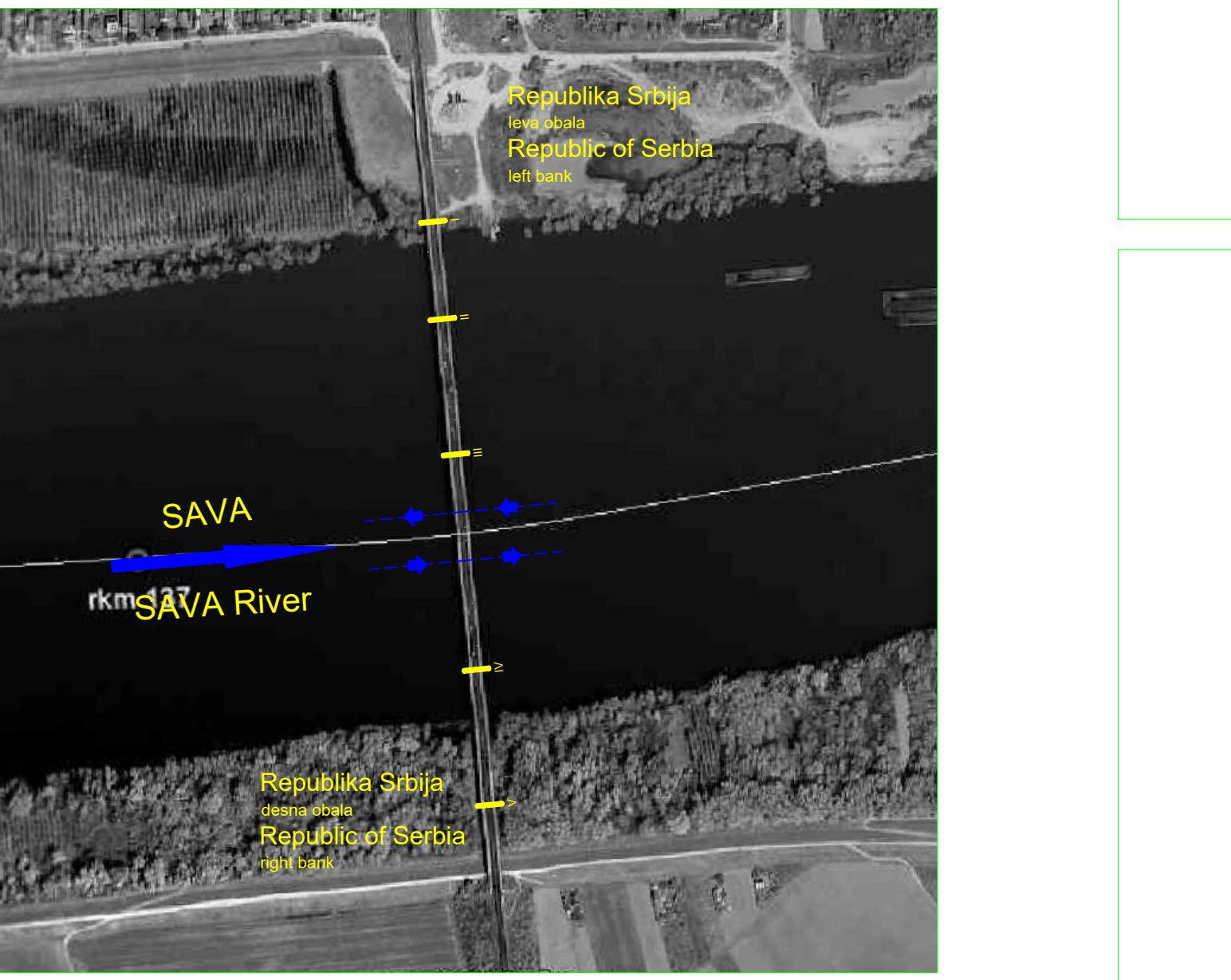
**Most za pešce S. Mitrov
Sava, rkm 139.24**

Merodajna vodomerna postaja S.Mitrovica, rkm 139.24, kota "0"=72.2

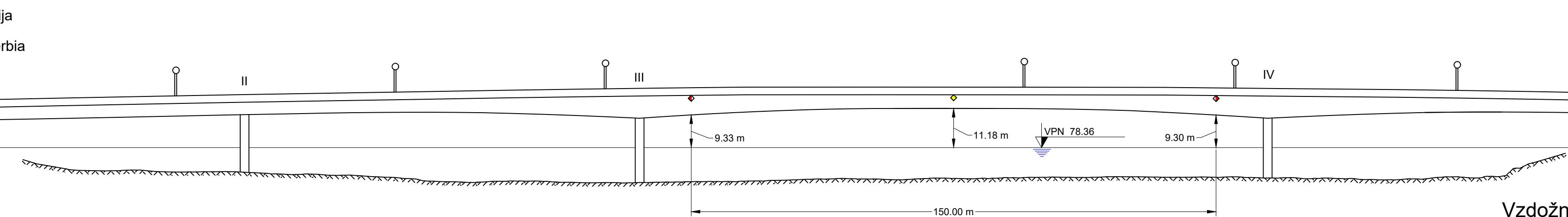
**Pedestrian bridge S. Mitrovic
Sava River, rkm 139.24**

Referent water gauge S. Mitrovica, rkm 139.24, water level "0"=72.22



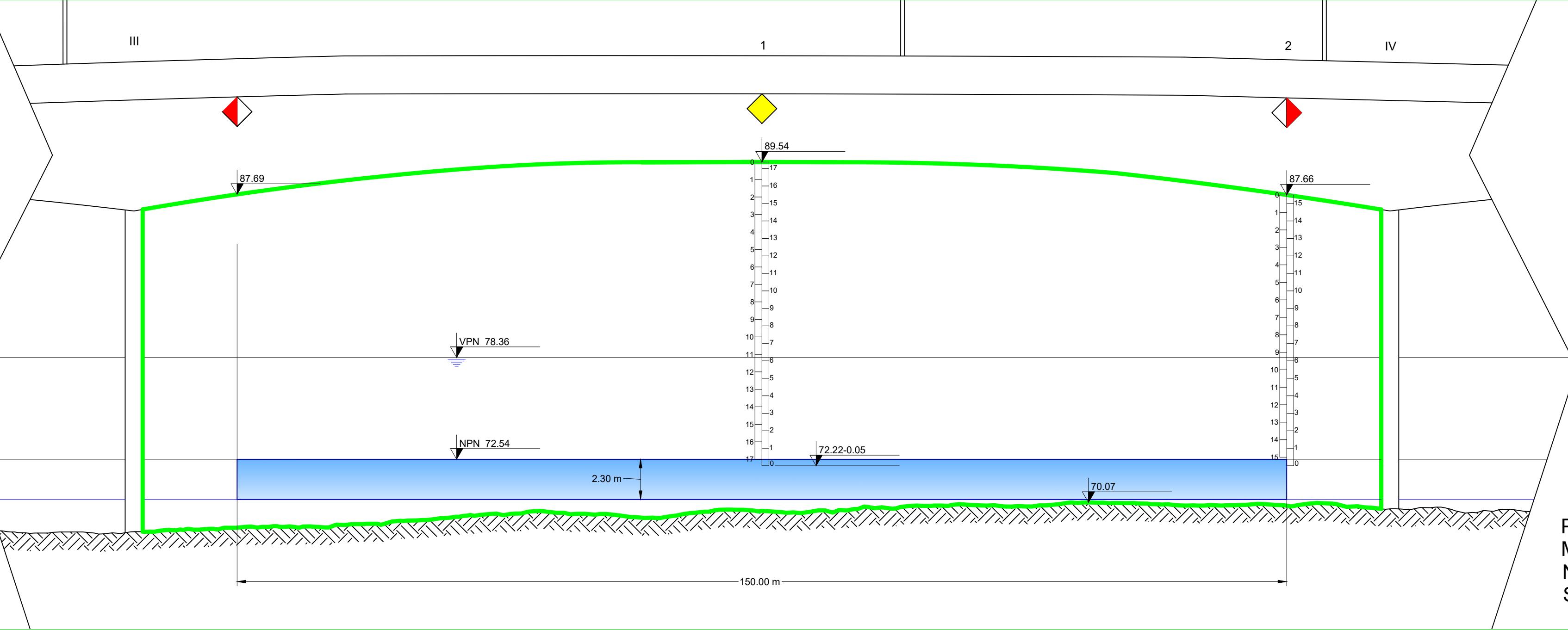


Situacija
 R 1:5000
Layout
 Scale 1:5000



A

- 1. Nivo vode na vodomerni postaji
- 2. Svetla višina v sredini plovbenе odprtine
- 3. Svetla višina na robu plovbenega območja
- T. Globina plovbenega območja v plovbeni odprtini



- VPN - visoki plovbeni nivo v profilu mosta
 - NPN - nizki plovbeni nivo v profilu mosta
 - vse kote so v m.n.m.
 - prečni profili v mostih odprtini snemani 2011
 - podatki o gabaritih stebrov in temeljih stebrov mostov niso zanesljivi

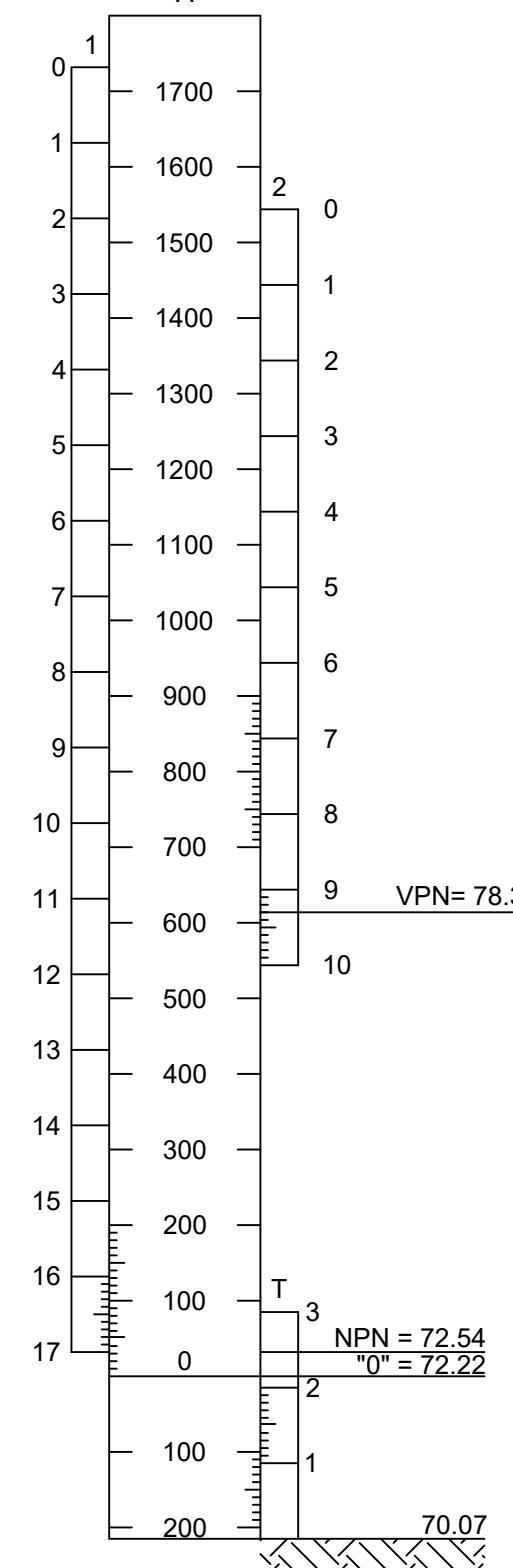
- VPN - high navigation water level (bridge cross section)
 - NPN - low navigation water level (bridge cross section)
 - all levels are in m.a.s.l.
 - bridge cross section is measured in Year 2011
 - pier and piers foundation dimensions are not reliable information

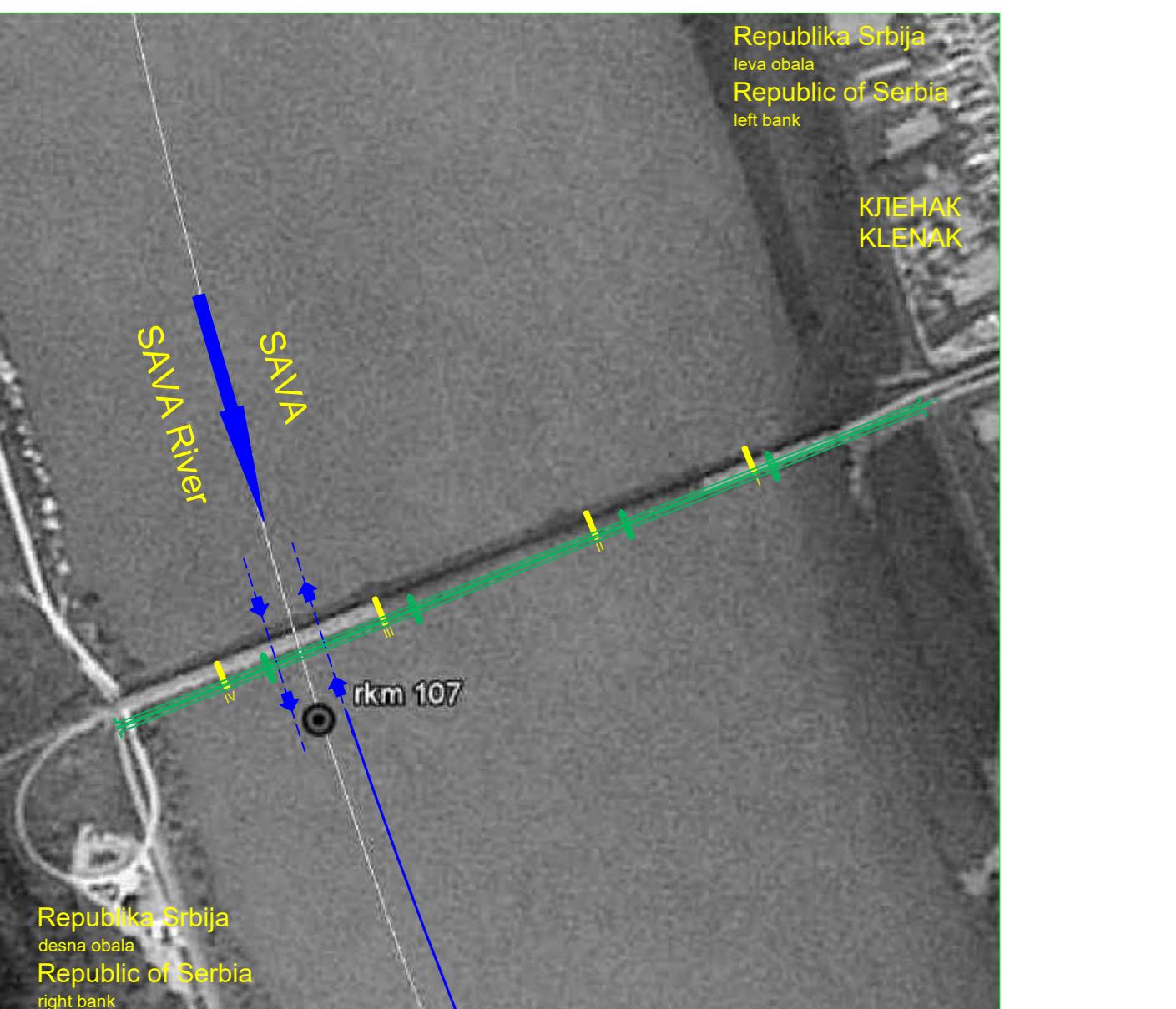
Cestni most S. Mitrovica, Sava, rkm 136.60

Merodajna vodomerna postaja S.Mitrovica, rkm 139.24, kota "0"=72.22 m.n.m

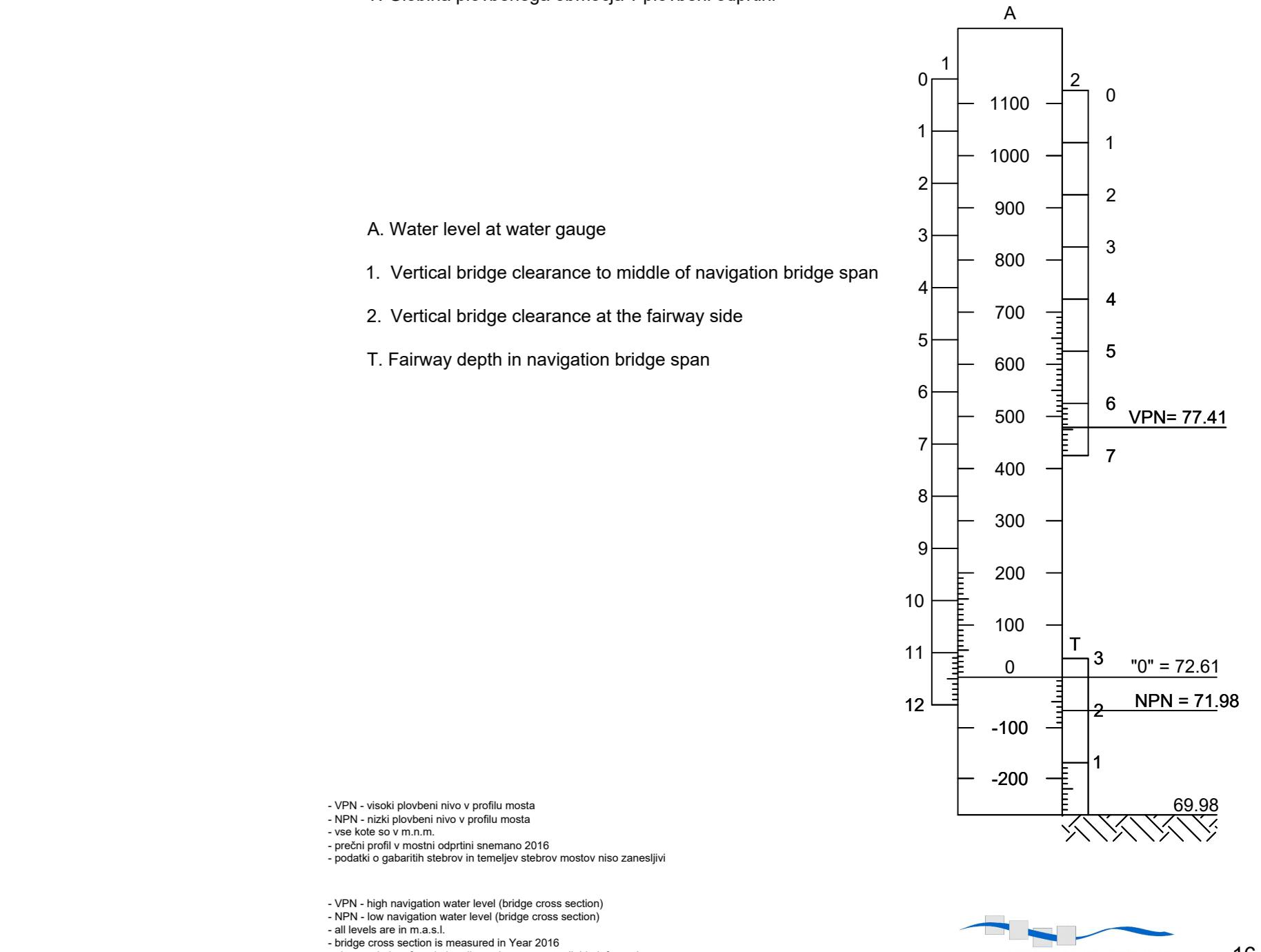
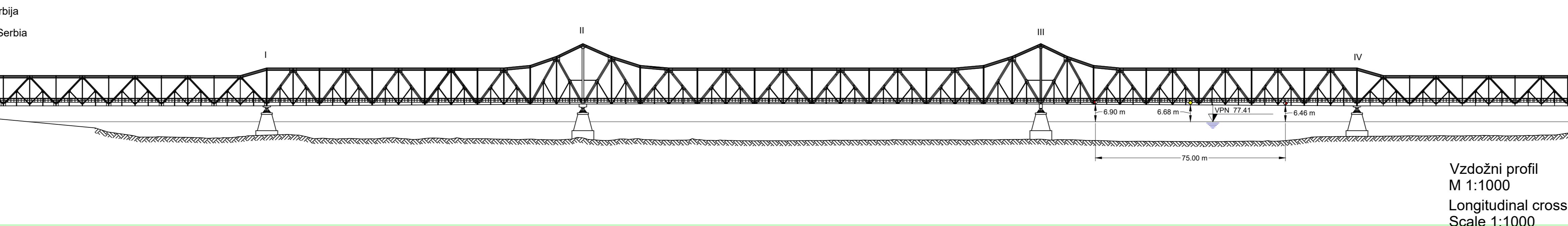
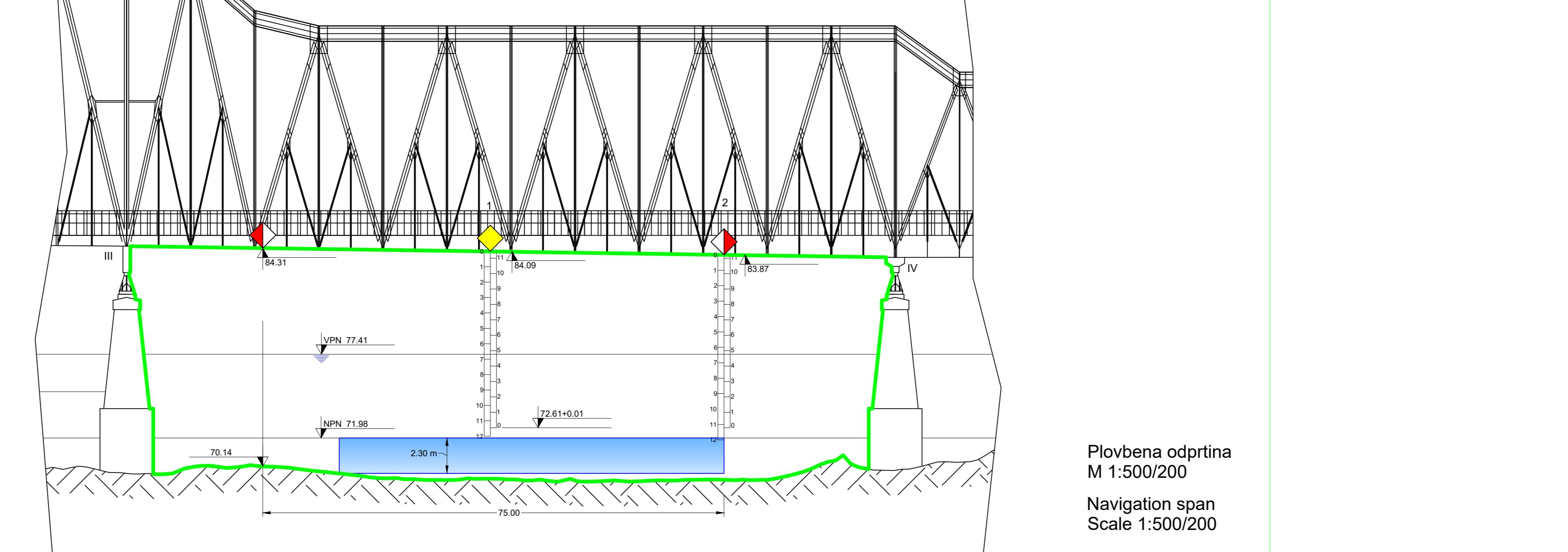
Road bridge S. Mitrovica, Sava River rkm 136.60

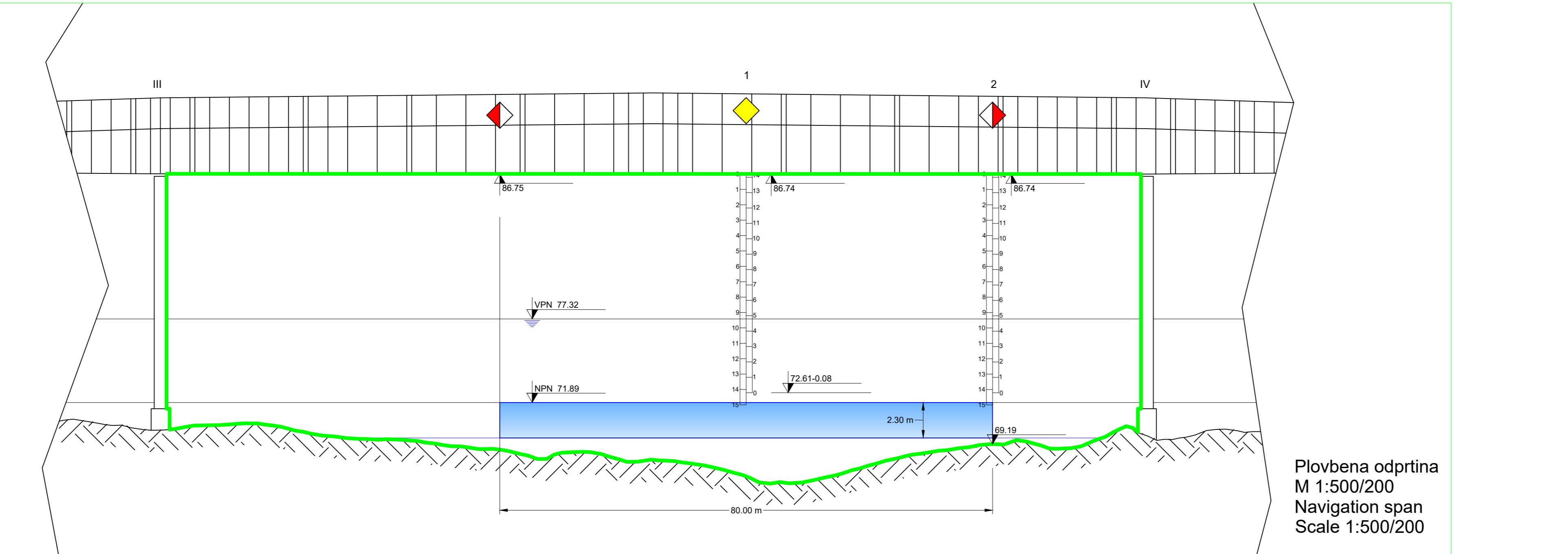
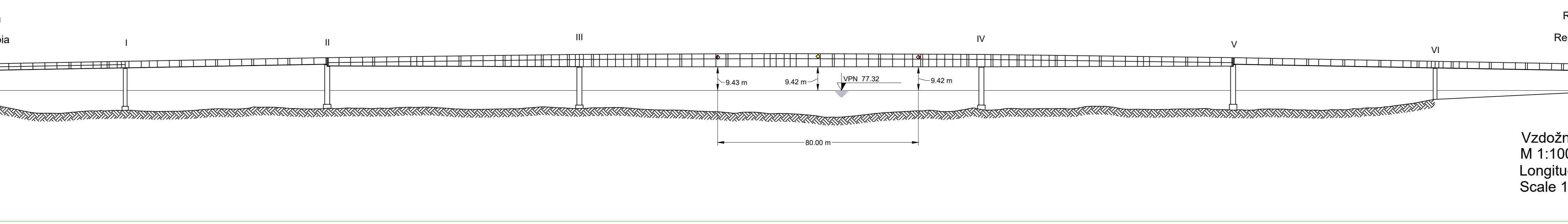
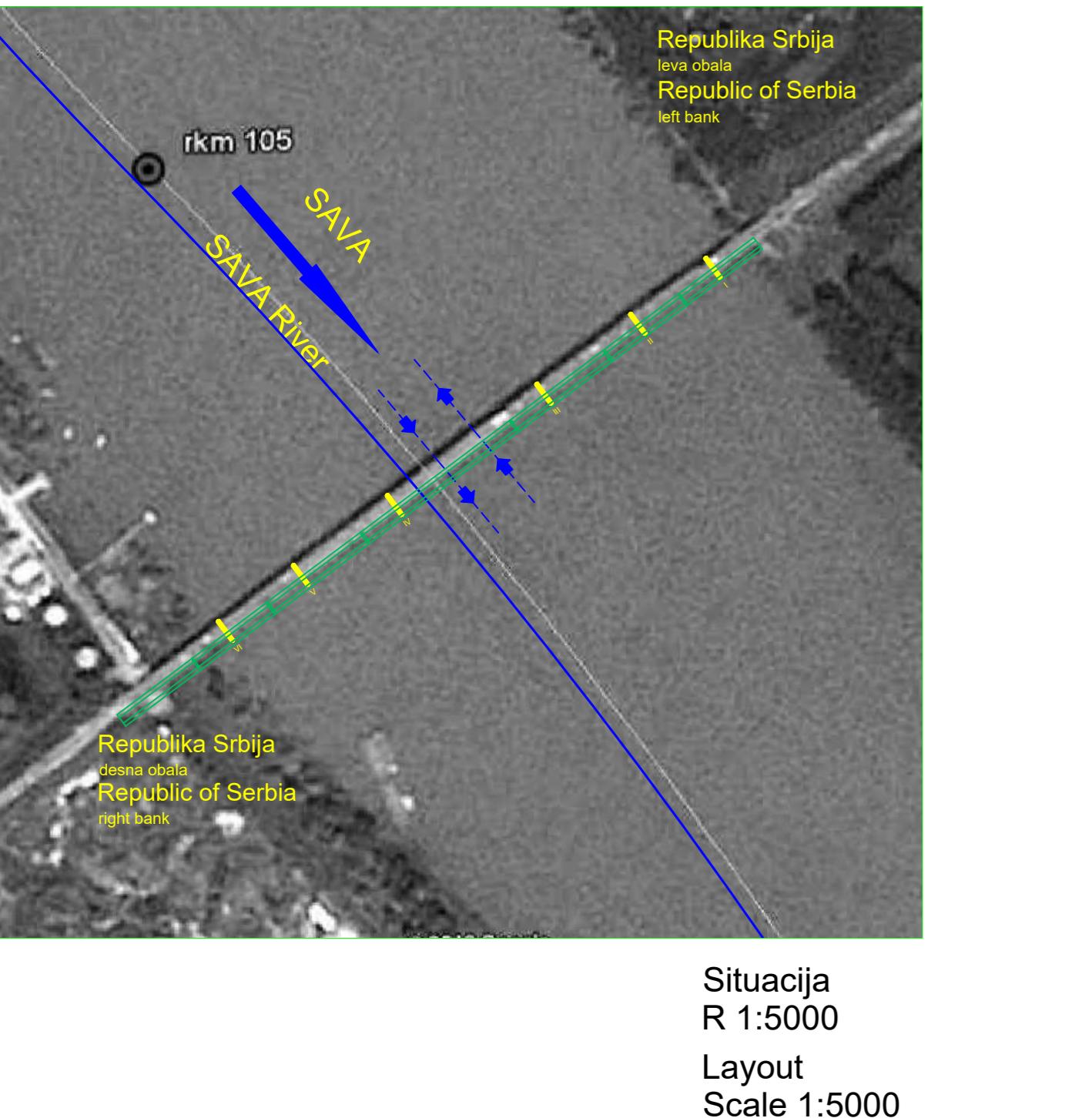
Referentna vodomerna postaja S. Mitrovica, rkm 139.24, voda raven "0"=72.22 m.a.s.l.





Situacija
R 1:5000
Layout
Scale 1:5000



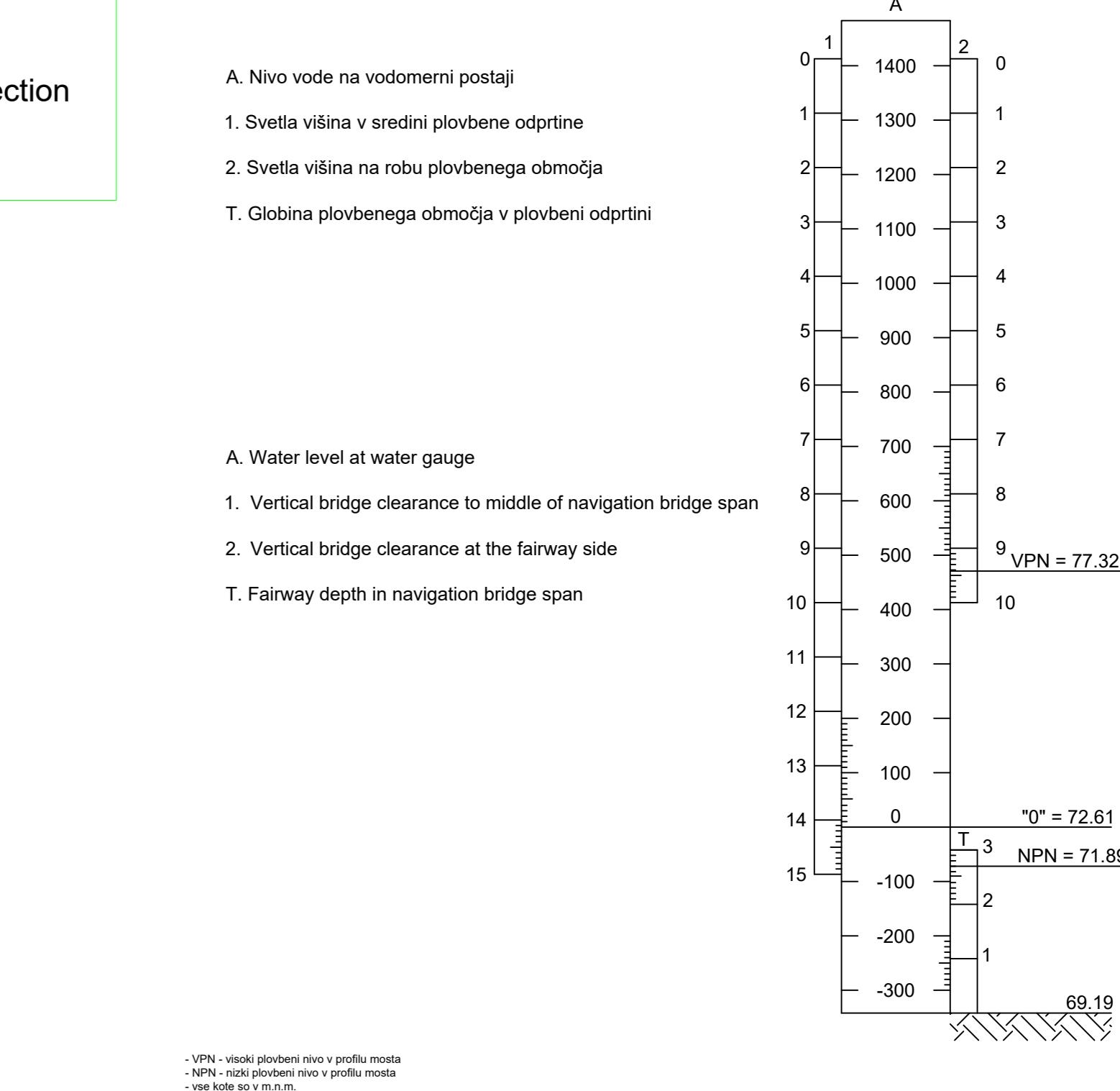


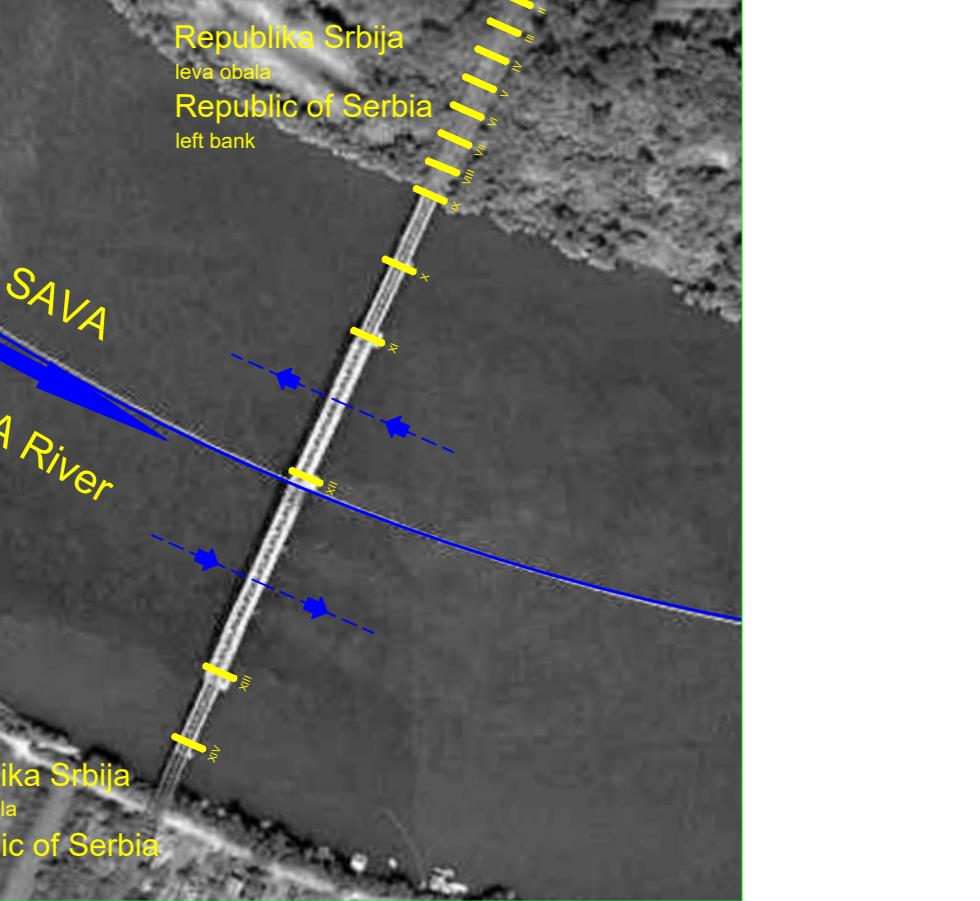
Cestni most Šabac, Sava, rkm 104.53

Merodajna vodomerna postaja Šabac, rkm 106.28, kota "0"=72.61 m.n.m

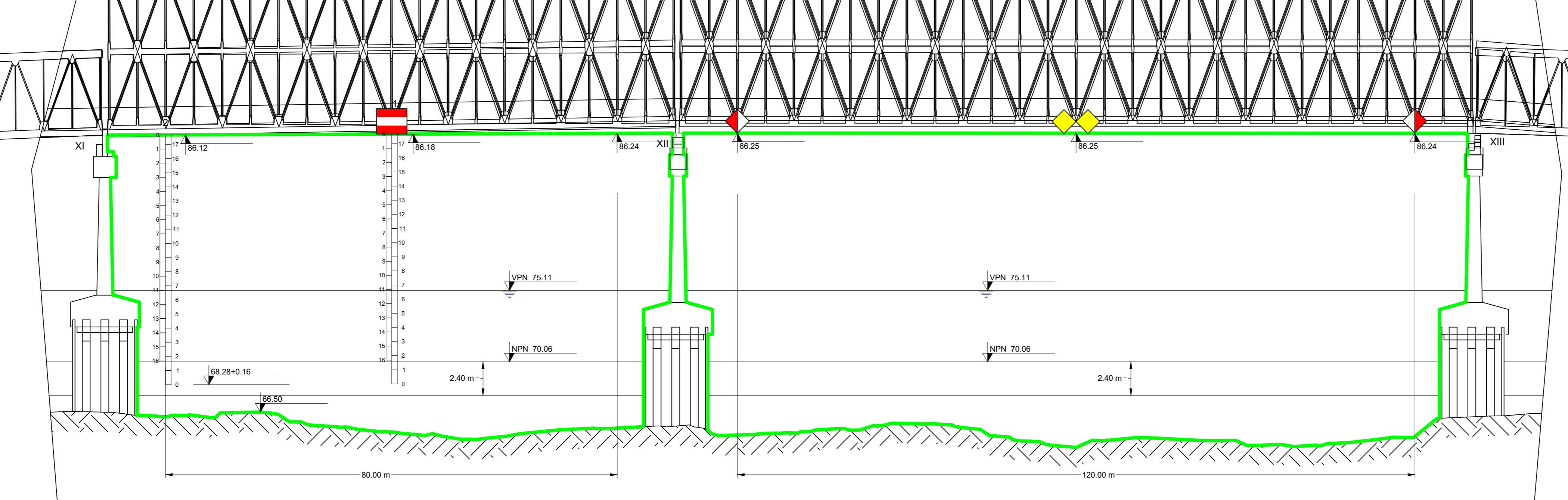
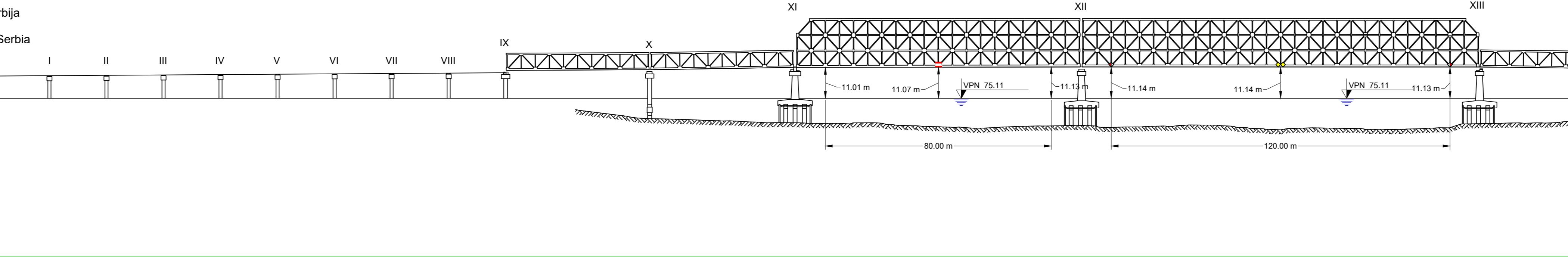
Road bridge Šabac, Sava River, rkm 104.53

Referentna vodna stopnja Šabac, rkm 106.28, voda na nivo "0"=72.61 m.s.l.





Situacija
R 1:5000
Layout
Scale 1:5000

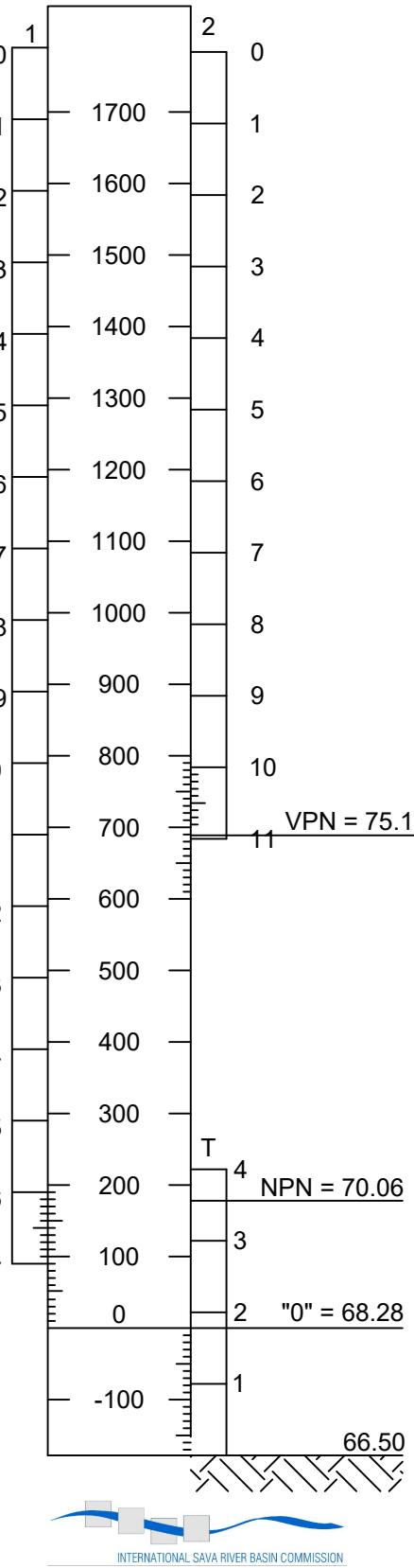


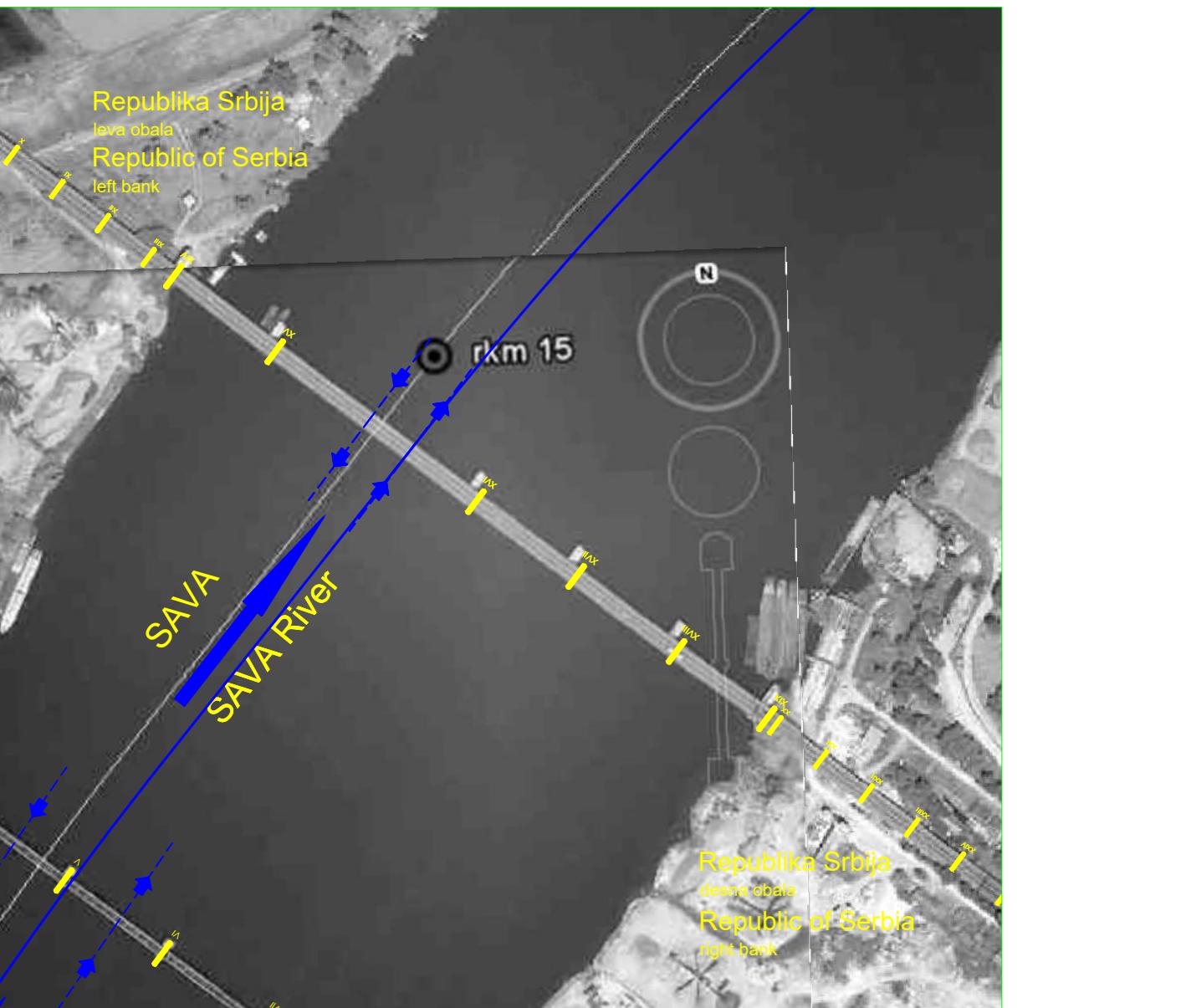
**Cestno-toplovodni most Obrenovac,
Sava, rkm 42.53**
Merodajna vodomerna postaja Beograd, rkm 0.82, kota "0"=68.28 m.n.m
**Road and pipeline bridge Obrenovac,
Sava River, rkm 42.53**
Referent water gauge Belgrade, rkm 0.82, water level "0"=68.28 m.a.s.l.

A. Nivo vode na vodomerni postaji
1. Svetla višina v sredini plovbenе odprtine
2. Svetla višina na robu plovbenega območja
T. Globina plovbenega območja v plovbeni odprtini

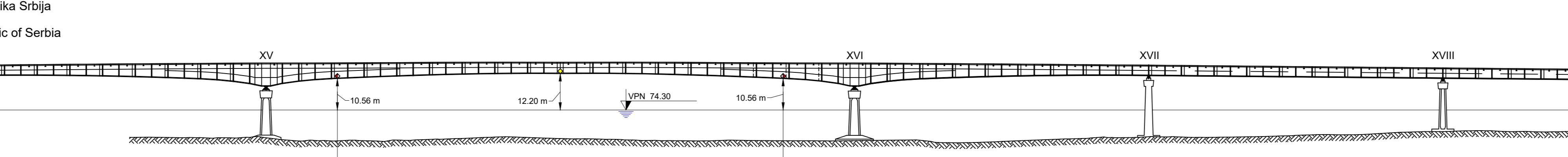
A. Water level at water gauge
1. Vertical bridge clearance to middle of navigation bridge span
2. Vertical bridge clearance at the fairway side
T. Fairway depth in navigation bridge span

- VPN - visoki plovbeni nivo v profilu mosta
- NPN - nizki plovbeni nivo v profilu mosta
- vse kot so v m.n.m.
- prečni profili v mostih odprtini snemano 2011
- podatki o gabaritih stekrov in temeljev stebrov mostov niso zanesljivi
- VPN - high navigation water level (bridge cross section)
- NPN - low navigation water level (bridge cross section)
- all levels are in m.s.l.
- bridge cross section is measured in Year 2011
- piers and pier foundation dimensions are not reliable information

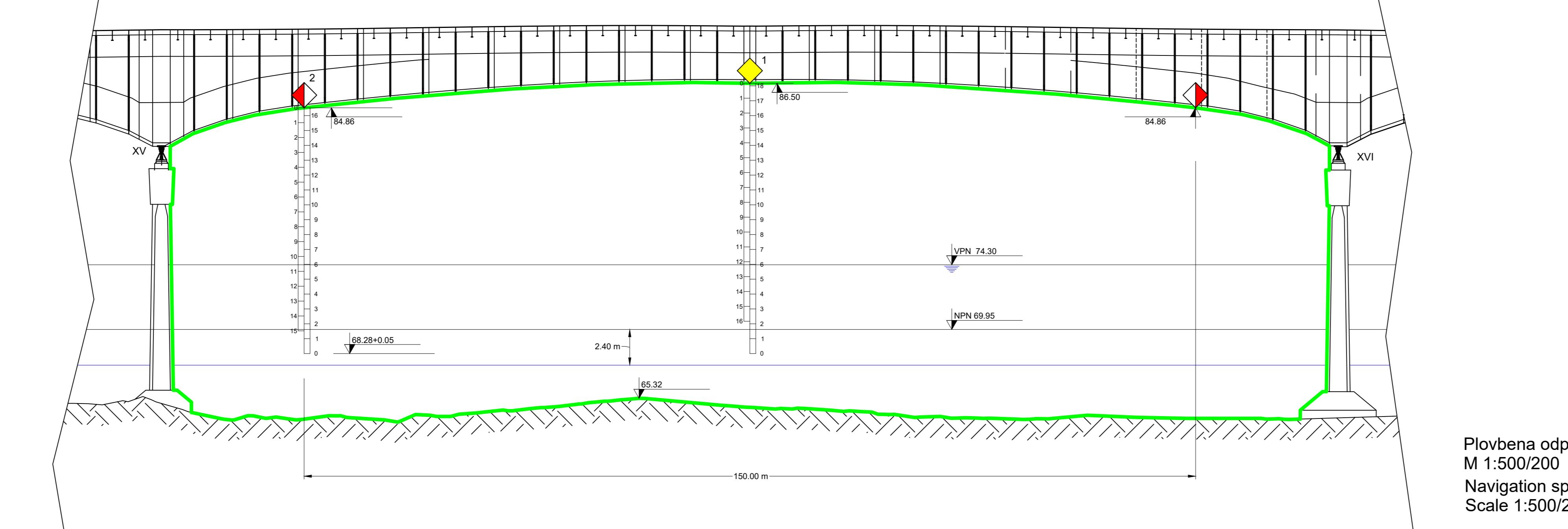




Situacija
M 1:5000
Layout
Scale 1:5000



Vzdužni profil
M 1:1000
Longitudinal cross section
Scale 1:1000



Cestni most Ostružnica, Sava, rkm 15.00

Merodajna vodomerna postaja Beograd, rkm 0.82, kota "0"=68.28 m.m.

Road bridge Ostružnica, Sava River, rkm 15.00

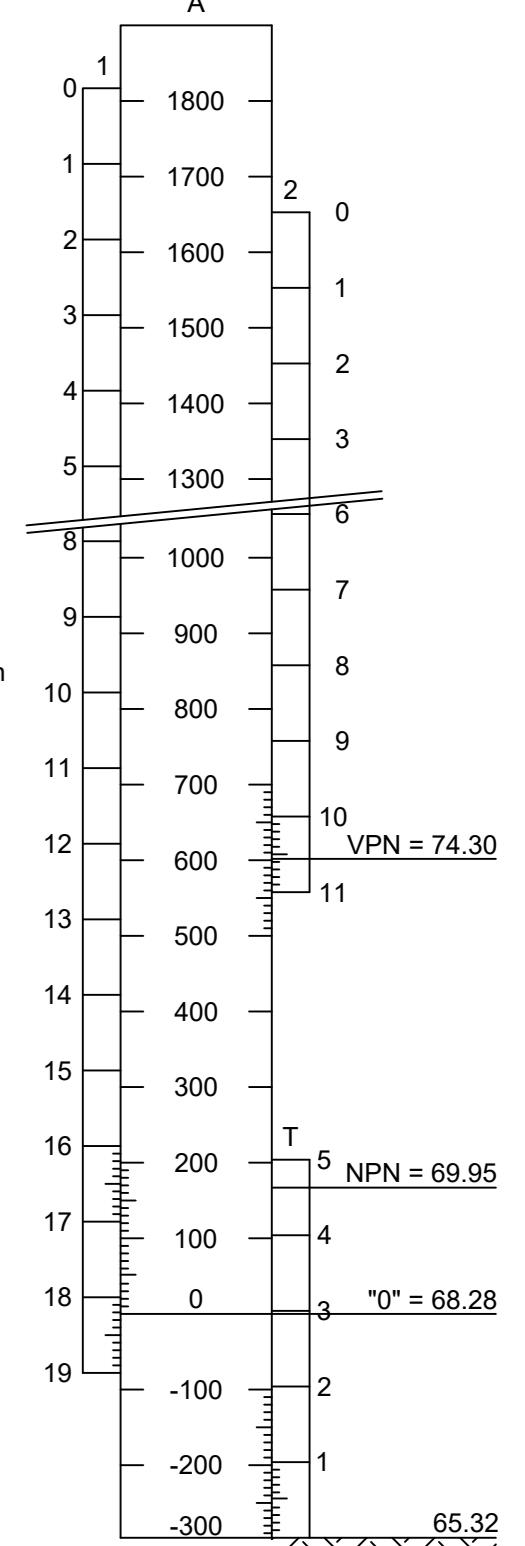
Referent vodna stupnja Belgrade, rkm 0.82, voda "0"=68.28 m.a.s.l.

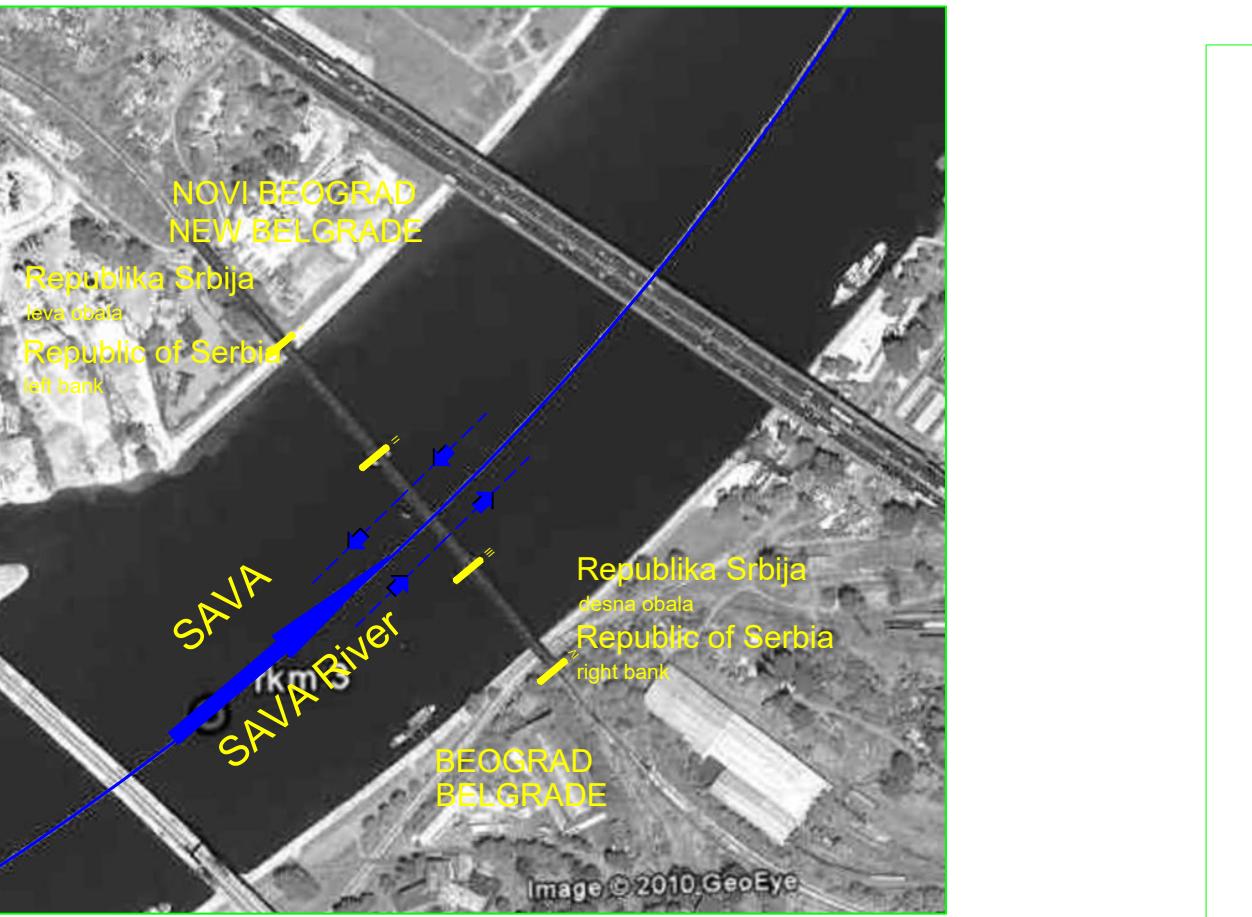
- A. Nivo vode na vodomerni postaji
- 1. Svetla višina v sredini plovbenega odprtine
- 2. Svetla višina na robu plovbenega območja
- T. Globina plovbenega območja v plovbeni odprtini

- A. Water level at water gauge
- 1. Vertical bridge clearance to middle of navigation bridge span
- 2. Vertical bridge clearance at the fairway side
- T. Fairway depth in navigation bridge span

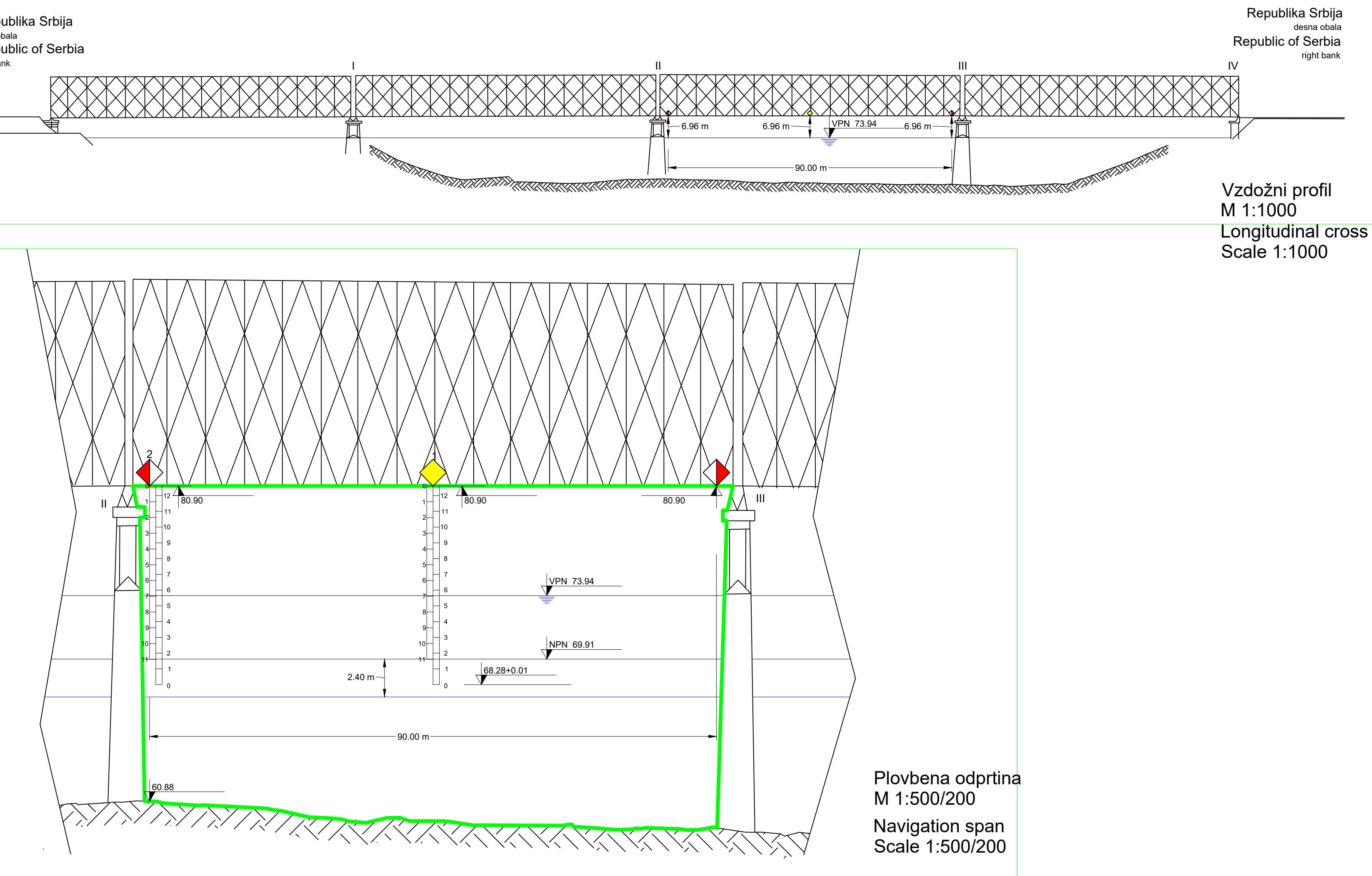
- VZN - visoki plovbeni nivo v profilu mosta
- NPN - nizki plovbeni nivo v profilu mosta
- voda kote so v m.m.n.
- prečni profili v mostih odprtini snemano 2011
- podatki o gabaritih stekrov in temeljev stebrov niso zanesljivi

- VZN - visoki plovbeni nivo v profilu mosta
- NPN - nizki plovbeni nivo v profilu mosta
- voda kote so v m.m.n.
- all levels are in m.a.s.l.
- bridge cross section is measured in Year 2011
- pier and pier foundation dimensions are not reliable information

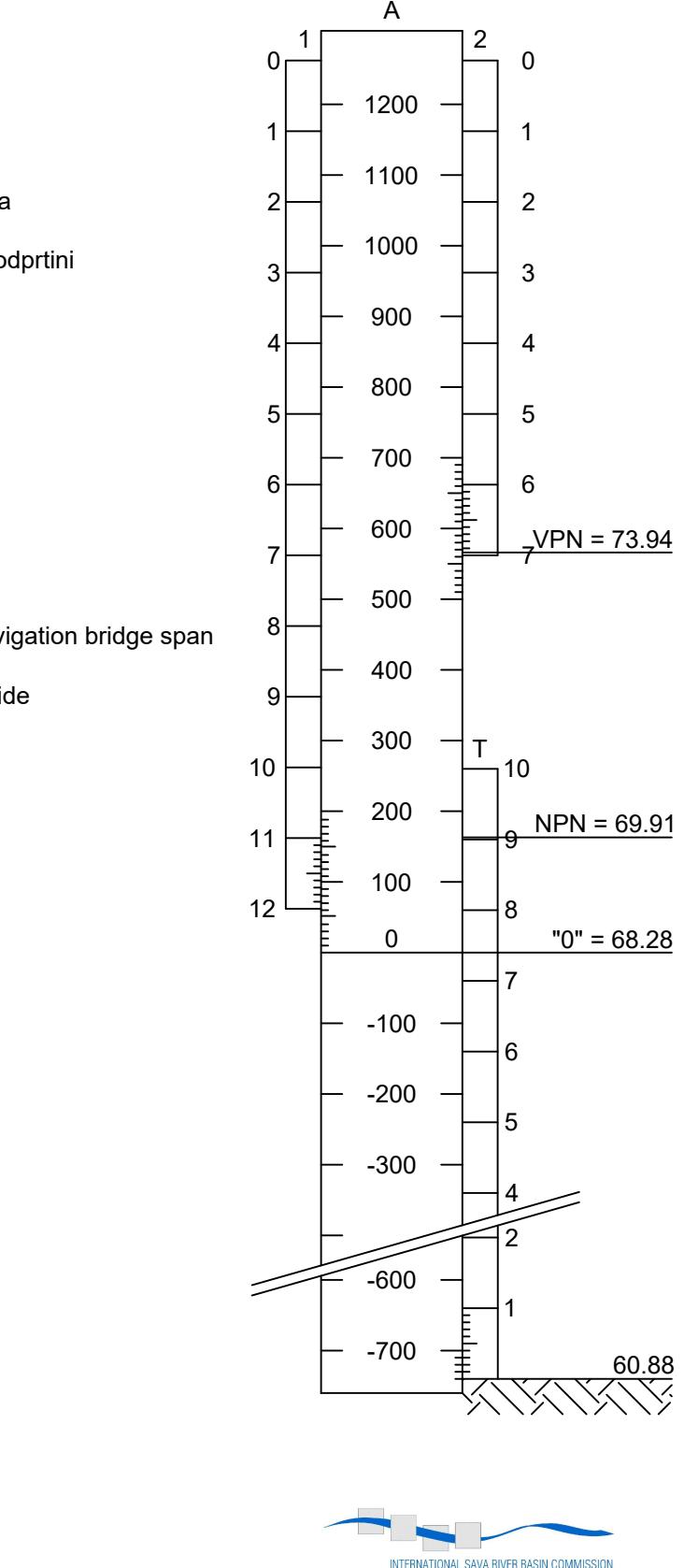


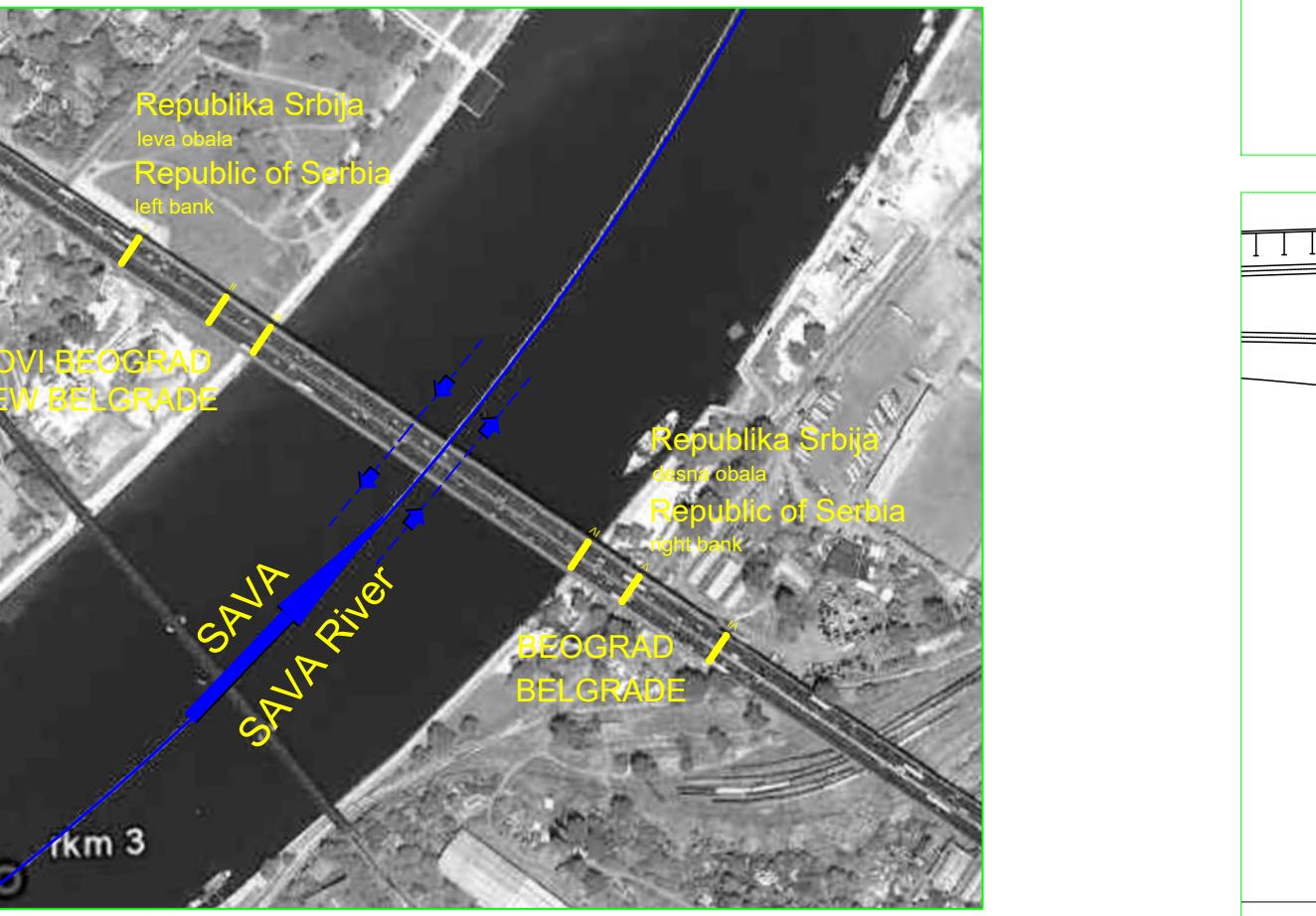


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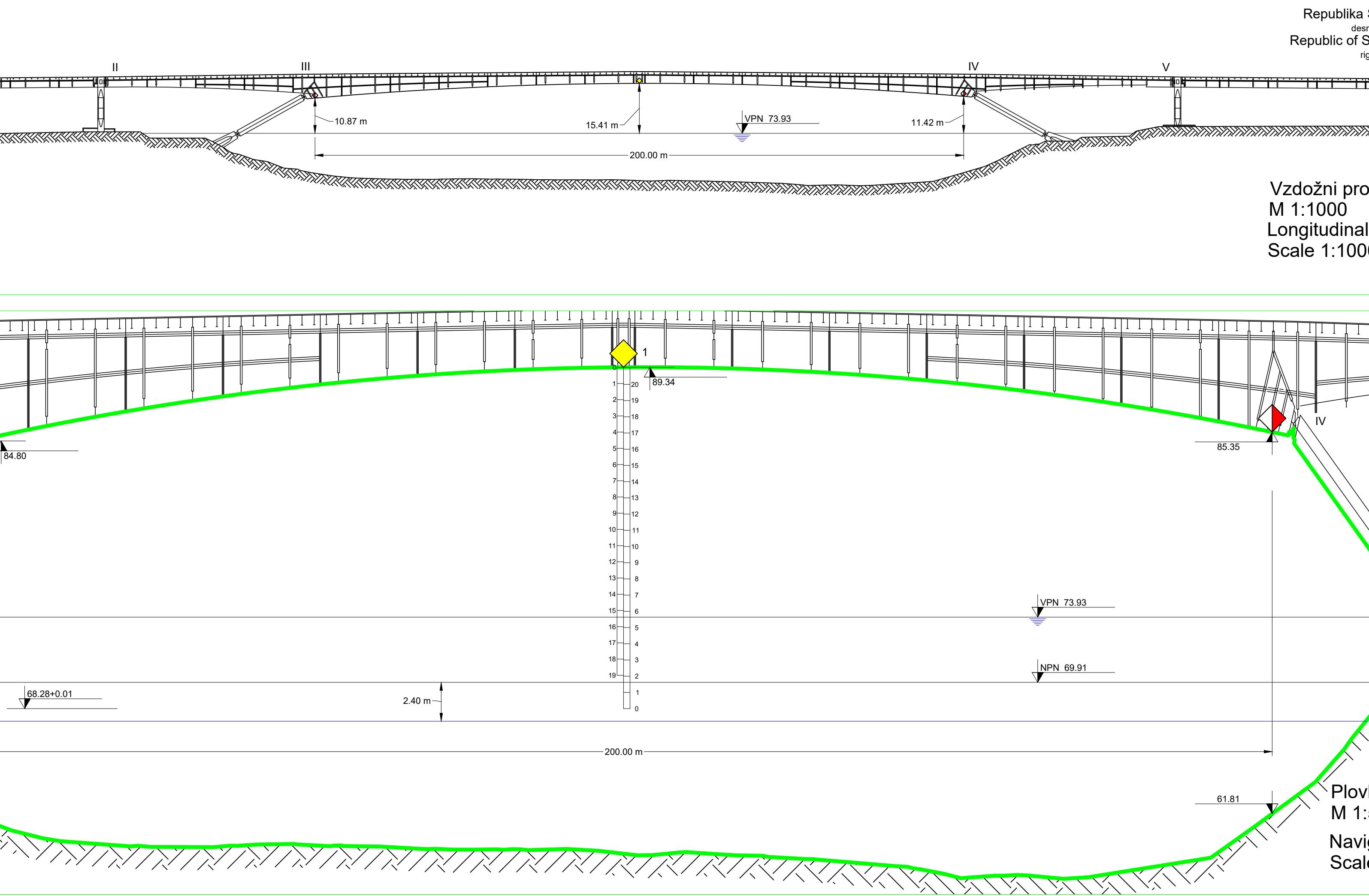


Stari železniški most Beograda Sava, rkm 2.73

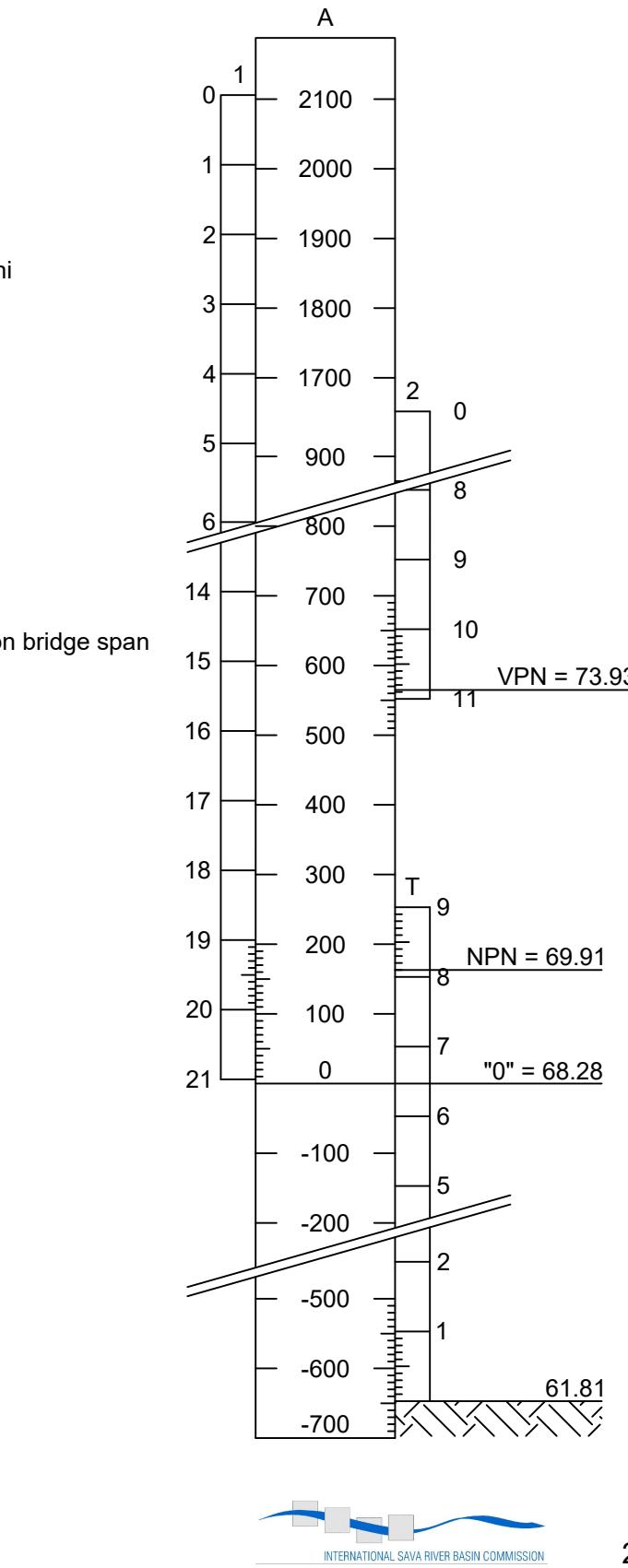


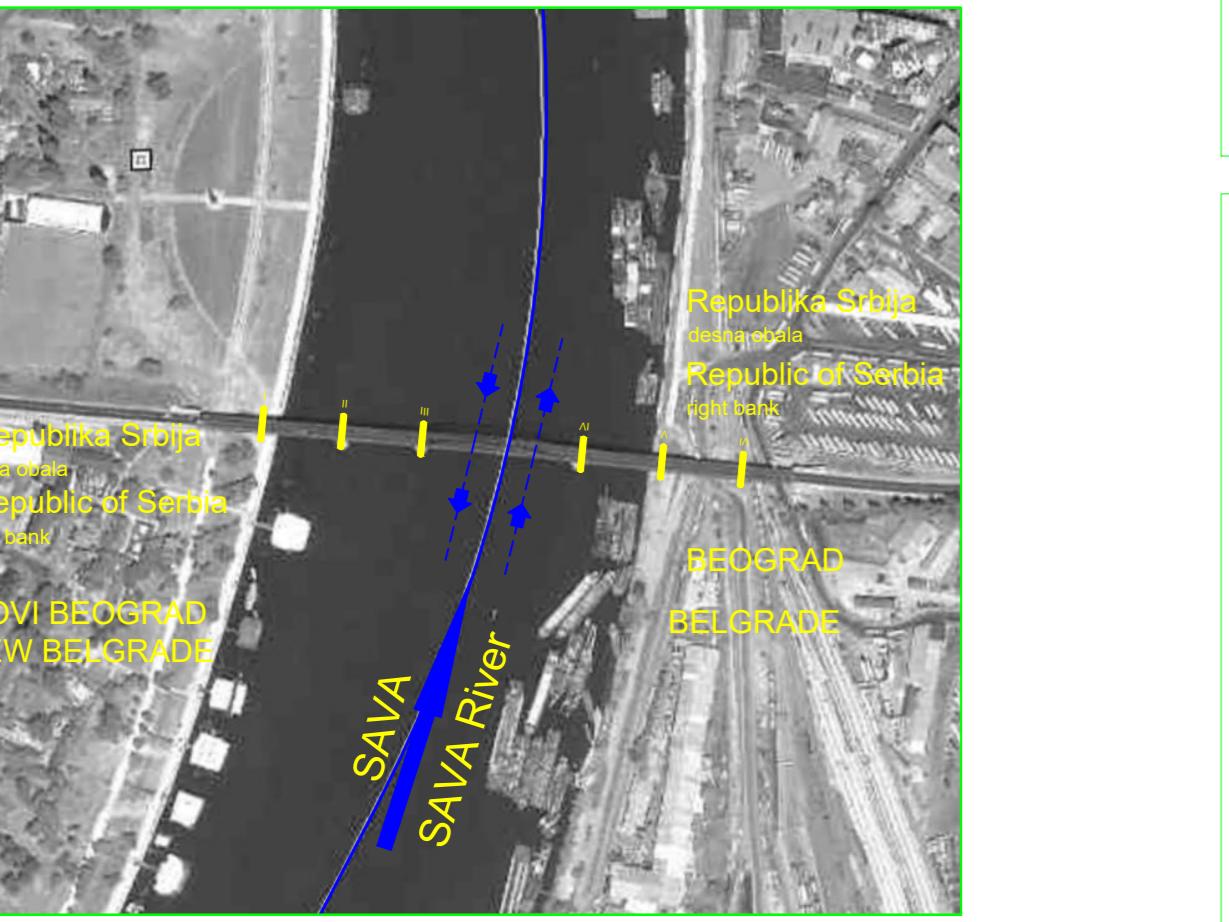


Situacija
 M 1:5000
 Layout
 Scale 1:5000

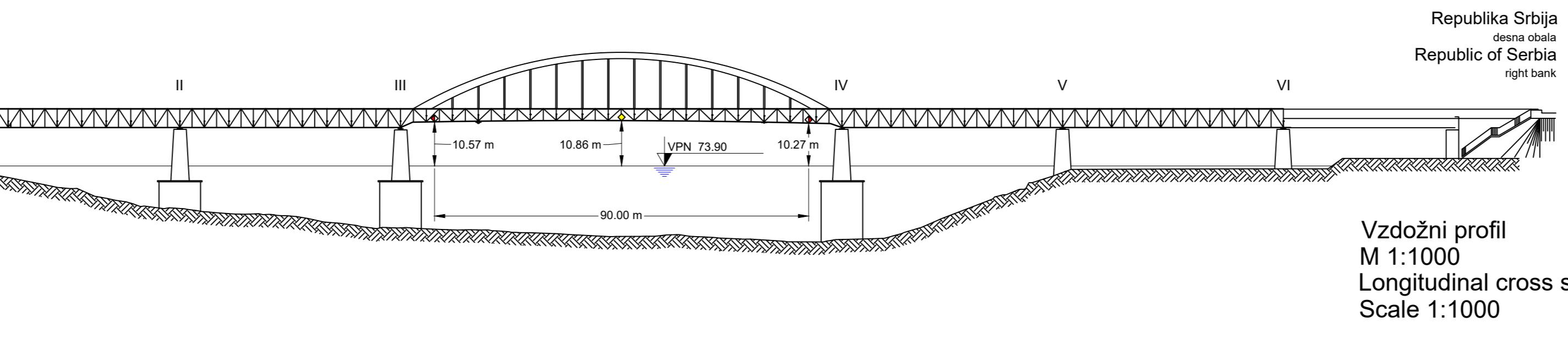


**Cestni most "Gazela" Beograd,
 Sava, rkm 2.52**
 Merodajna vodomerna postaja Beograd, rkm 0.82, kota "0"=68.28 m.n.m
**Road bridge "Gazela" Belgrade,
 Sava River, rkm 2.52**
 Referent vodna stopnja Belgrade, rkm 0.82, voda stopnja "0"=68.28 m.a.s.l.

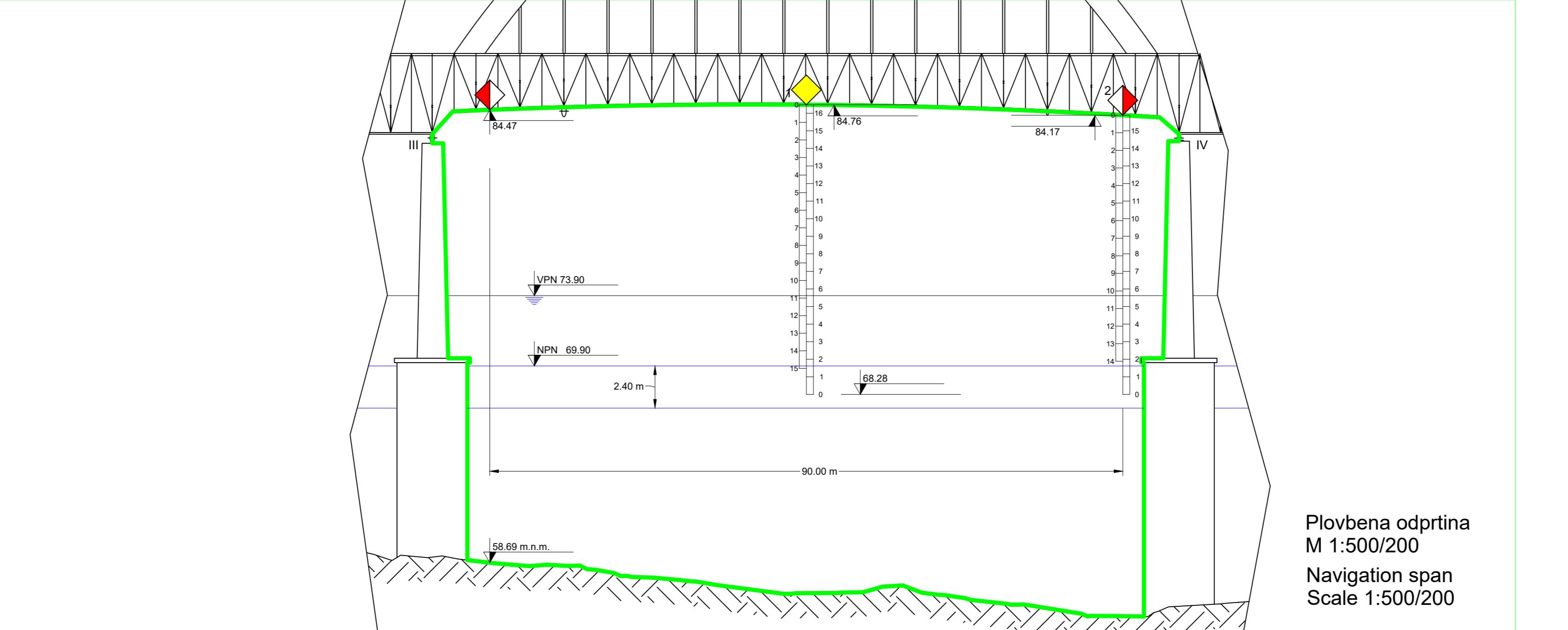




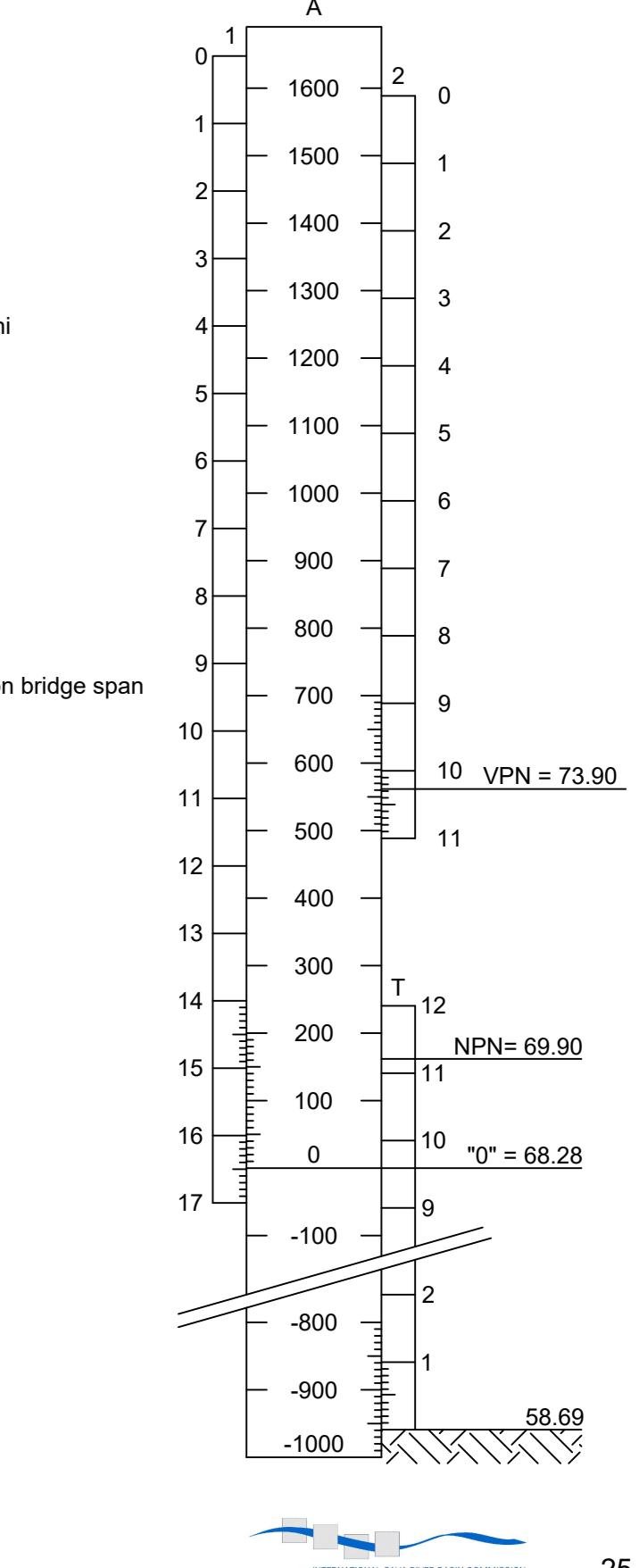
Situacija
M 1:5000
Layout
Scale 1:5000



- A. Nivo vode na vodomerni postaji
- 1. Svetla višina v sredini plovbenе odprtine
- 2. Svetla višina na robu plovbenega območja
- T. Globina plovbenega območja v plovbeni odprtini



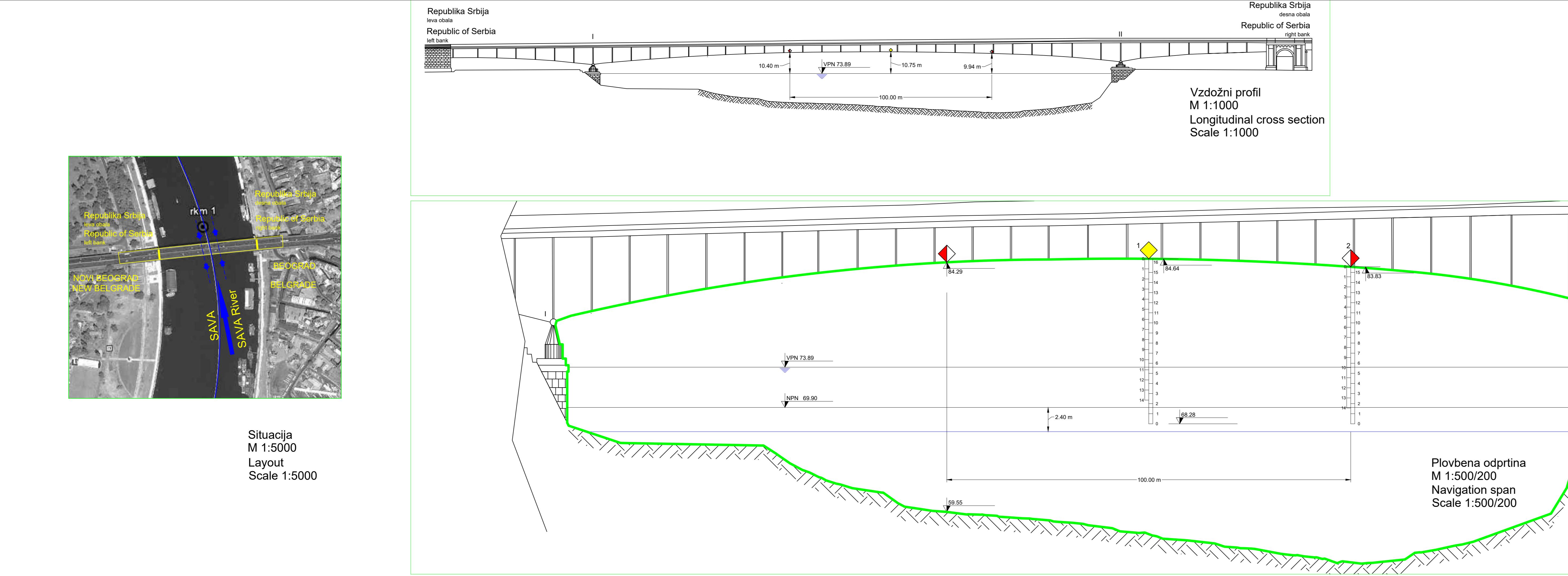
- A. Water level at water gauge
- 1. Vertical bridge clearance to middle of navigation bridge span
- 2. Vertical bridge clearance at the fairway side
- T. Fairway depth in navigation bridge span



Cestno-tramvajski most Beograd,
Sava, rkm 1.43
Merodajna vodomerna postaja Beograd, rkm 0.82, kota "0"=68.28 m.n.m

Road- tramway bridge Belgrade, Sava River, rkm 1.43

Referent vodna stopnja Belgrade, rkm 0.82, vodni ravni "0"=68.28 m.a.s.l.



Cestni most Beograd - "Brankov most", Sava, rkm 1.00

Merodajna vodomerna postaja Beograd, rkm 0.82, kota "0"=68.28 m

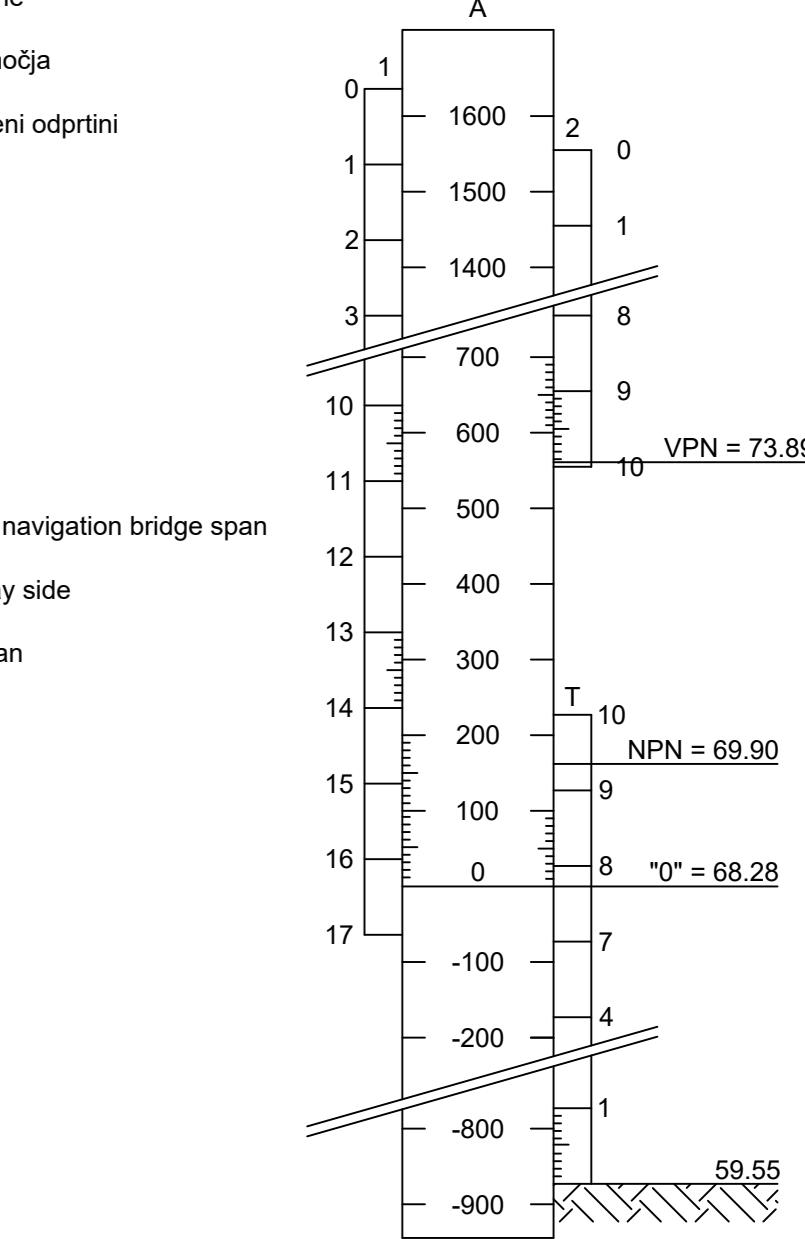
Road bridge Belgrade - "Branko's bridge" Sava River, rkm 1.00

Referent water gauge Belgrade, rkm 0.82, water level "0"=68.28 m

- 1. Svetla višina v sredini
 - 2. Svetla višina na robovih
 - T. Globina plovbenega področja

- A. Water level at water surface
- 1. Vertical bridge clearance
- 2. Vertical bridge clearance

T. Fairway depth in meters



- VPN - visoki plovba
- NPN - nizki plovba
- vse kote so v m.r.
- prečni profil so m.r.
- podatki so v m.r.

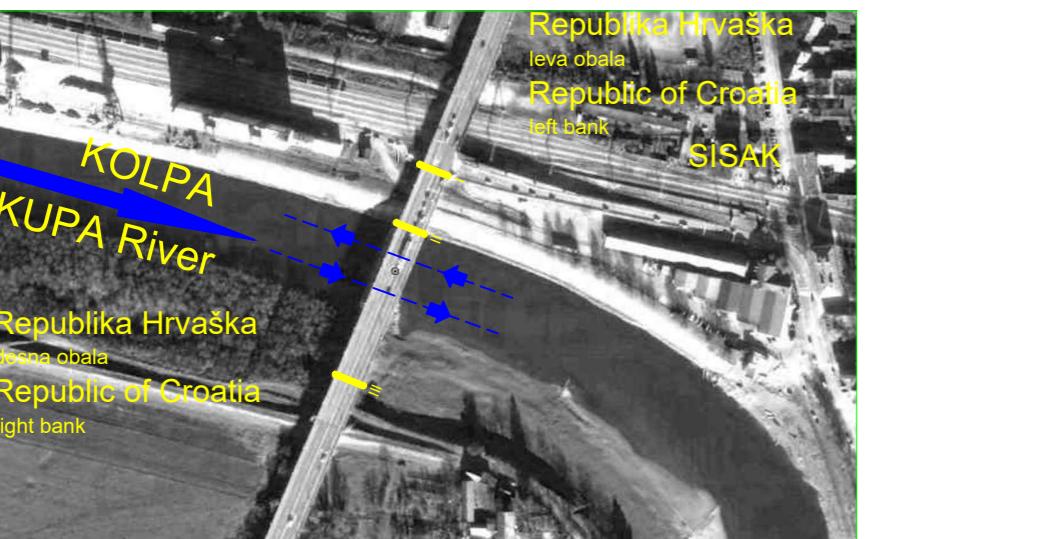
- VPN - high navigability
- NPN - low navigability
- all levels are in reach
- bridge cross sections
- piers and piers for navigation

Cestni most novi Sisak, Kupa, rkm 4.68

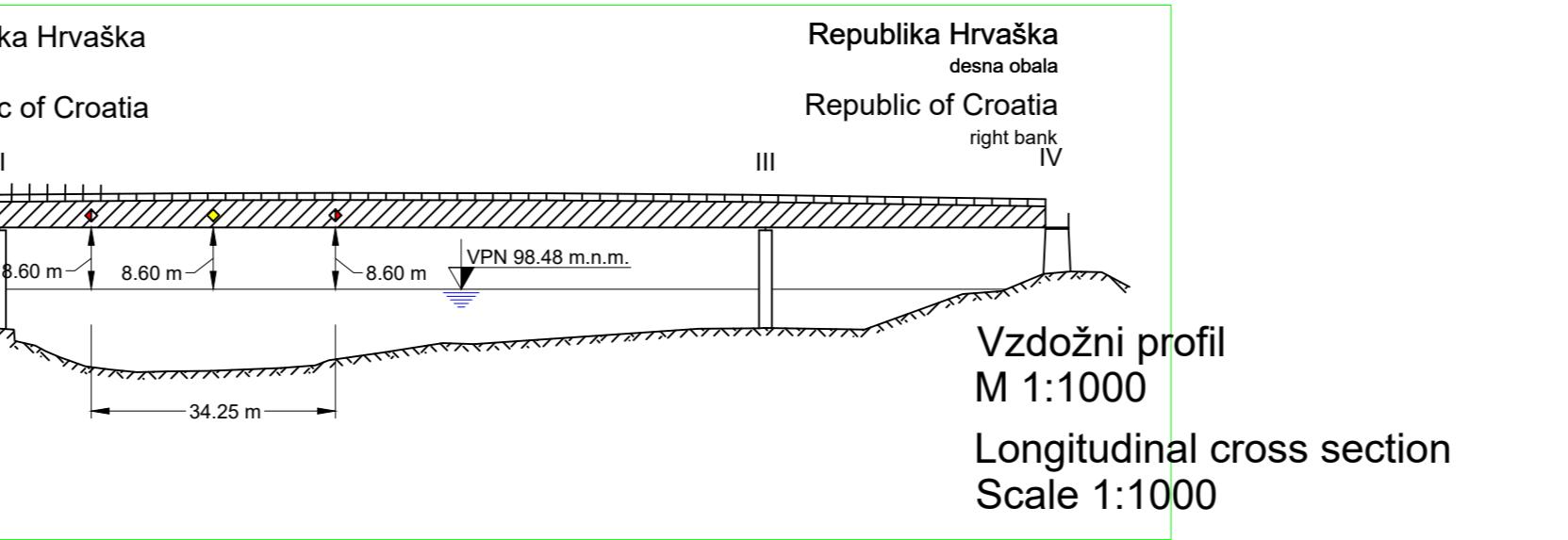
Merodajna vodomerna postaja Crnac, rkm 588.2, kota "0"=91.34 m.n.m.

Road bridge new Sisak, Kupa River, rkm 4.68

Referent water gauge Crnac, rkm 588.2, water level "0"=91.34 m.a.s.l.



Situacija
M 1:5000
Layout
Scale 1:5000

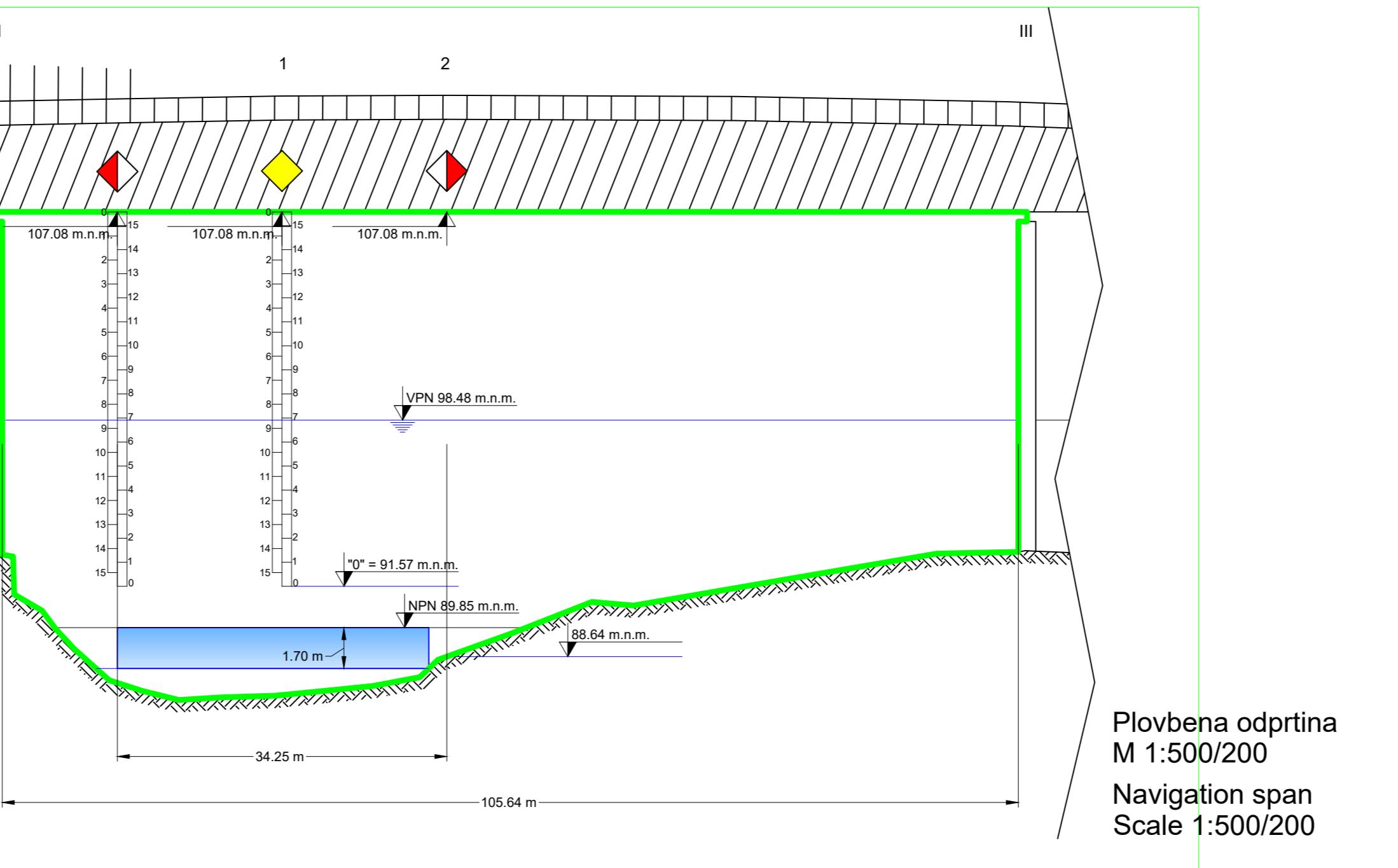


- A. Nivo vode na vodomerni postaji
 1. Svetla višina v sredini plovbenega odprtine
 2. Svetla višina na robu plovbenega območja
 T. Globina plovbenega območja v plovbeni odprtini

Opomba:
zmanjšati svetlo višino plovbenega odprtine za 10cm

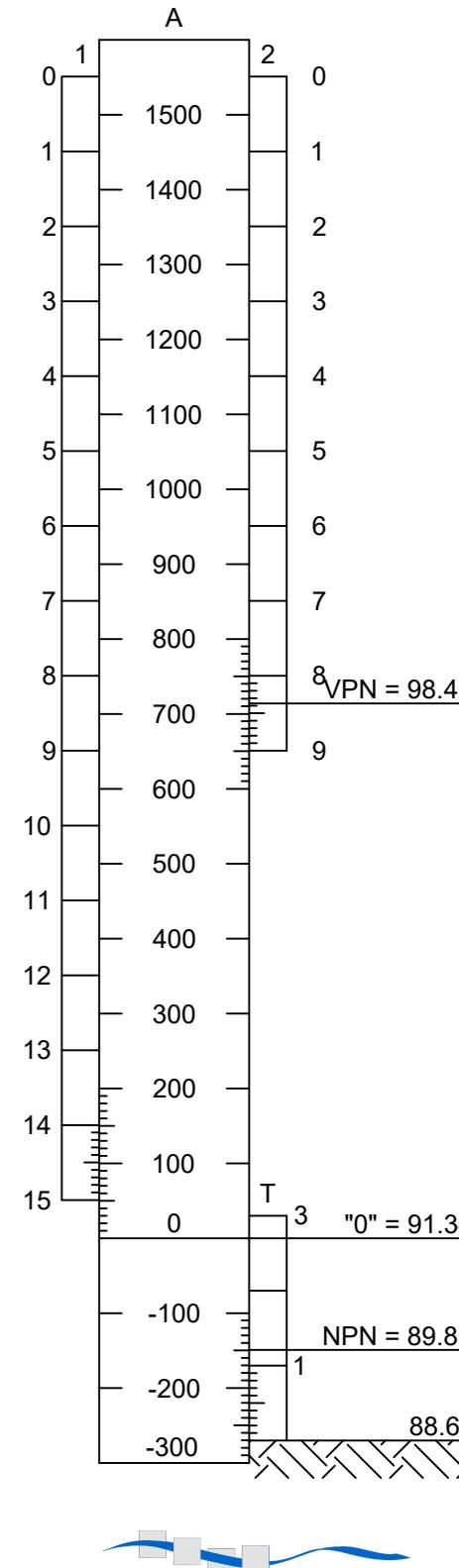
- A. Water level at water gauge
 1. Vertical bridge clearance to middle of navigation bridge span
 2. Vertical bridge clearance at the fairway side
 T. Fairway depth in navigation bridge span

Remark:
Vertical clearance should be lowered for 10cm



- VPN - visoki plovbeni nivo v profilu mosta
 - NPN - nizki plovbeni nivo v profilu mosta
 - vse kote so v m.n.m.
 - podatki o gabaritih stebrov in temeljih mostov niso zanesljivi

- VPN - high navigation water level (bridge cross section)
 - NPN - low navigation water level (bridge cross section)
 - all levels are in m.a.s.l.
 - piers and piers foundation dimensions are not reliable information

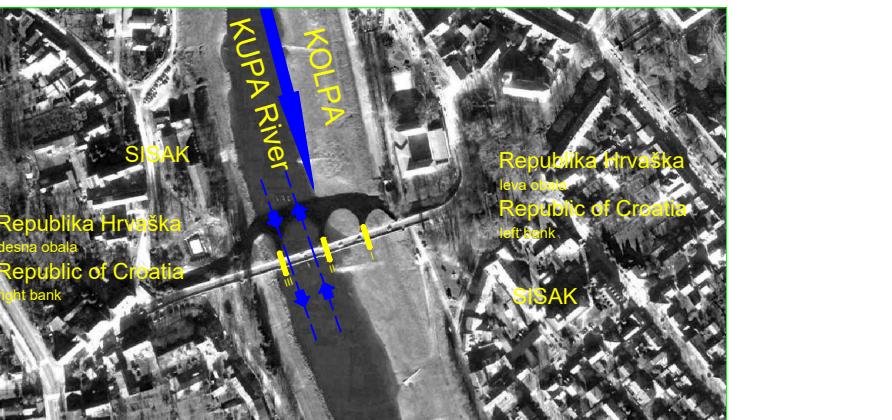


Cestni most stari Sisak, Kupa, rkm 3.4

Merodajna vodomerna postaja Crnac, rkm 588.2, kota "0"=91.34 m.n.m.

Road bridge old Sisak, Kupa River, rkm 3.4

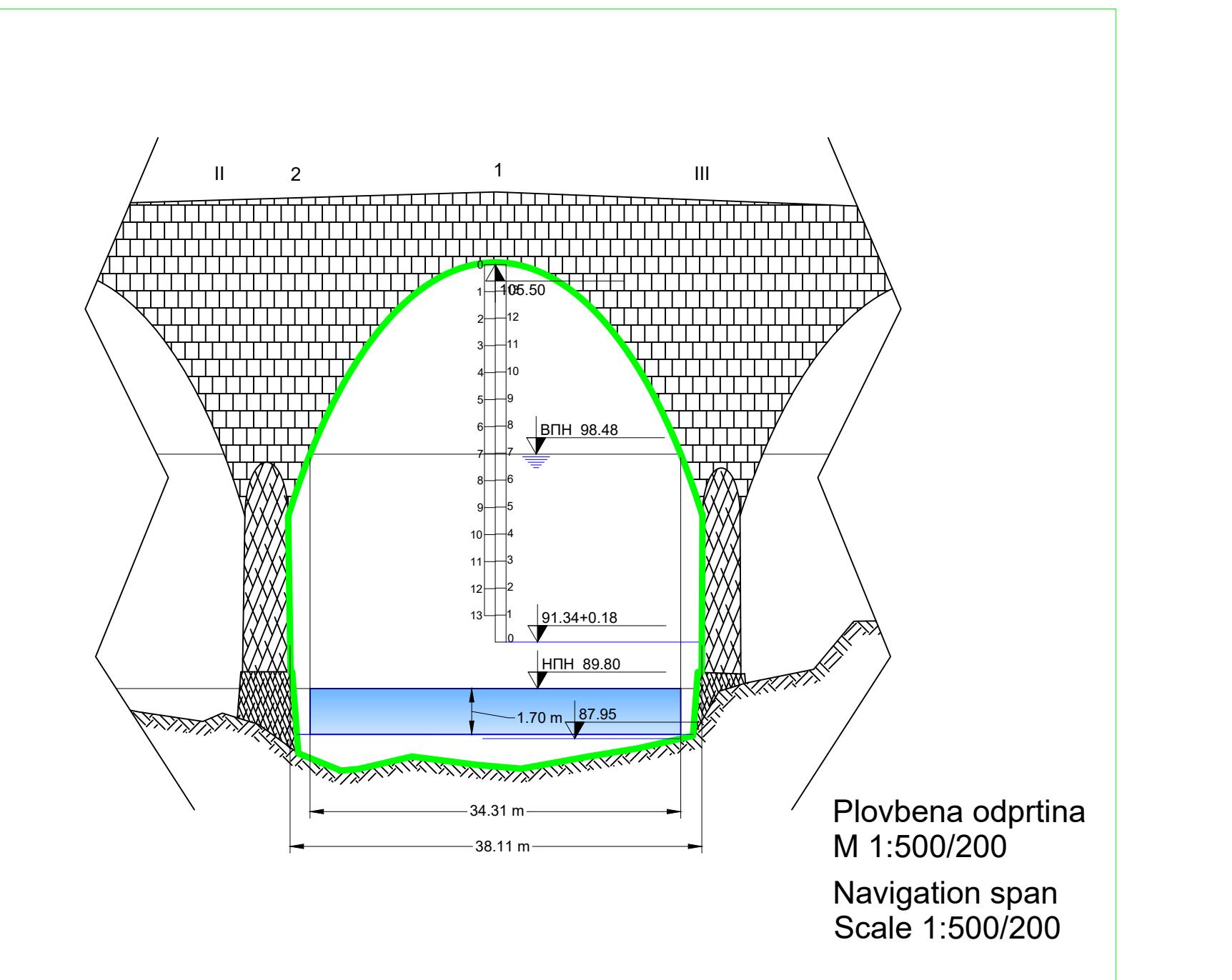
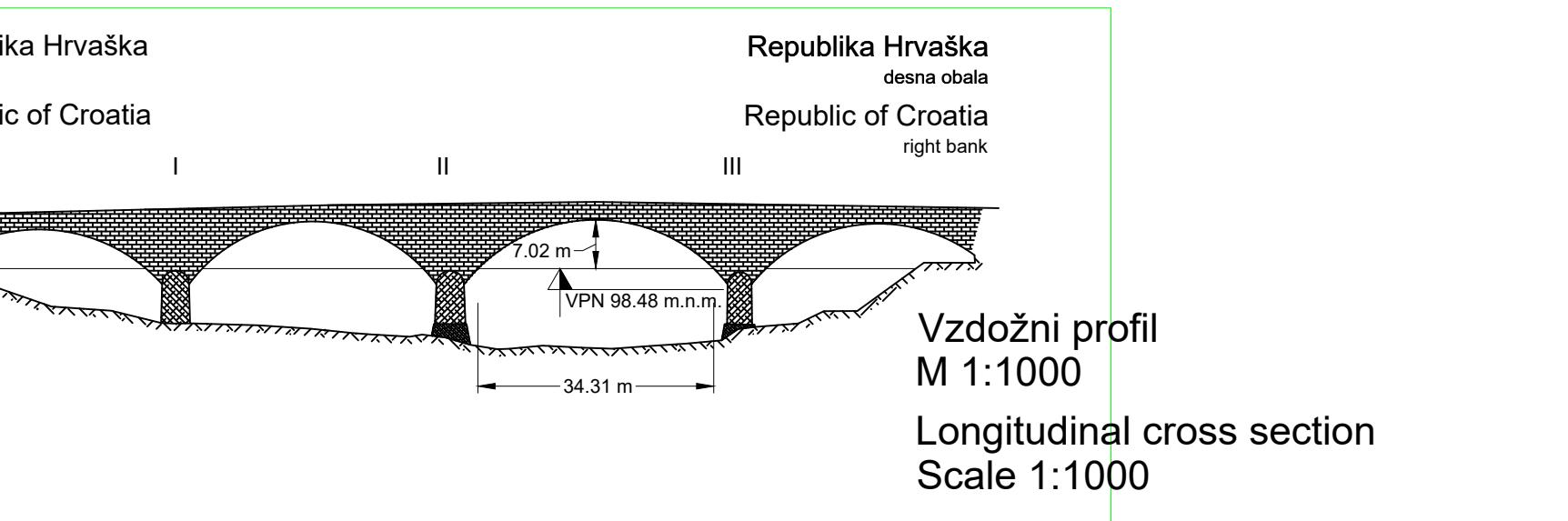
Referentna vodomerna postaja Crnac, rkm 588.2, voda na visini "0"=91.34 m.a.s.l.



Situacija
M 1:5000

Layout
Scale 1:5000

- VPN - visoki plovbeni nivo v profilu mosta
- NPN - nizki plovbeni nivo v profilu mosta
- vse kote so v m.n.m.
- podatki o gabaritih stebrov in temeljev stebrov mostov niso zanesljivi



A. Nivo vode na vodomerni postaji

1. Svetla višina v sredini plovbene odprtine

2. Svetla višina na robu plovbenega območja

T. Globina plovbenega območja v plovbeni odprtini

Opomba:
zmanjšati svetlo višino plovbene odprtine za 10cm

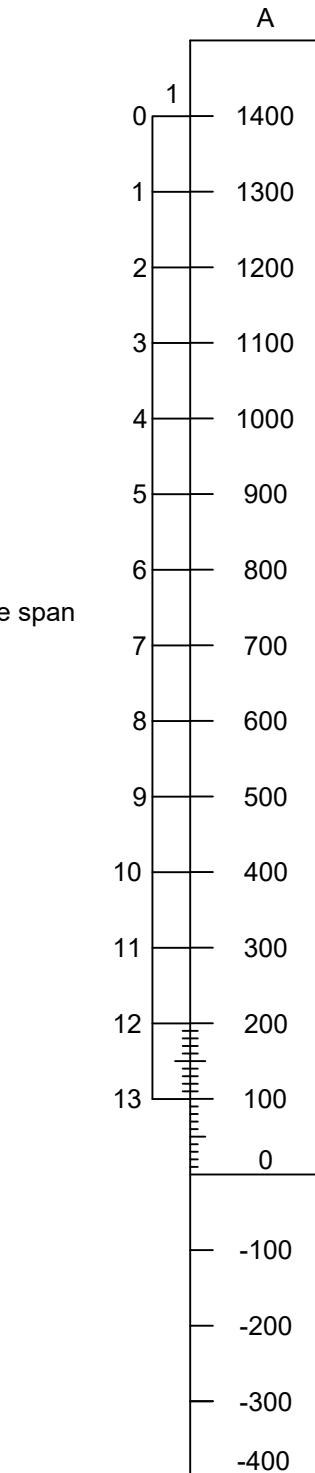
A. Water level at water gauge

1. Vertical bridge clearance to middle of navigation bridge span

2. Vertical bridge clearance at the fairway side

T. Fairway depth in navigation bridge span

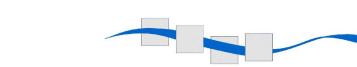
Remark:
Vertical clearance should be lowered for 10cm



- VPN - visoki plovbeni nivo v profilu mosta
- NPN - nizki plovbeni nivo v profilu mosta
- vse kote so v m.n.m.
- podatki o gabaritih stebrov in temeljev stebrov mostov niso zanesljivi

- VPN - visoki plovbeni nivo v profilu mosta
- NPN - nizki plovbeni nivo v profilu mosta
- vse kote so v m.n.m.
- podatki o gabaritih stebrov in temeljev stebrov mostov niso zanesljivi

- VPN - high navigation water level (bridge cross section)
- NPN - low navigation water level (bridge cross section)
- all levels are in m.a.s.l.
- piers and piers foundation dimensions are not reliable information

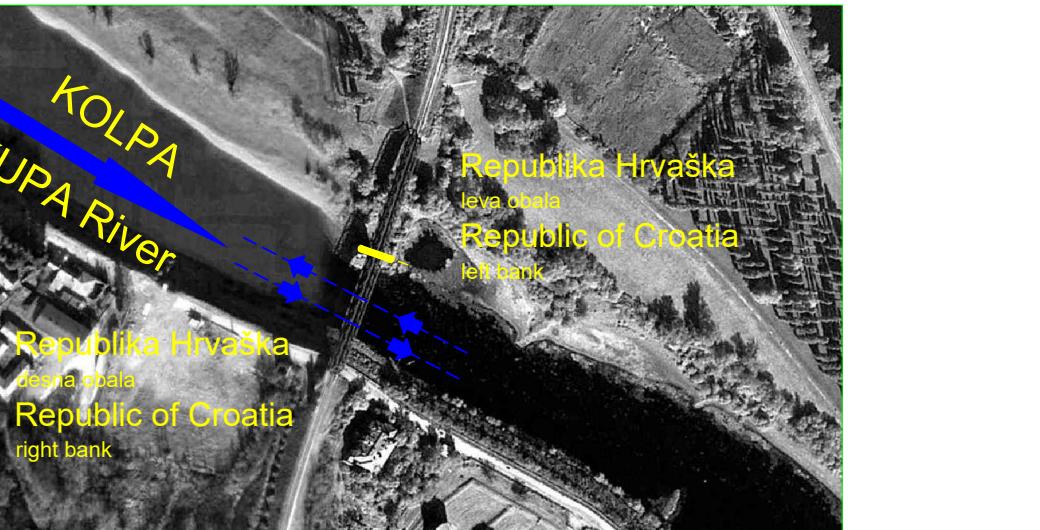


Železniški most Sisak, Kupa, rkm 2.1

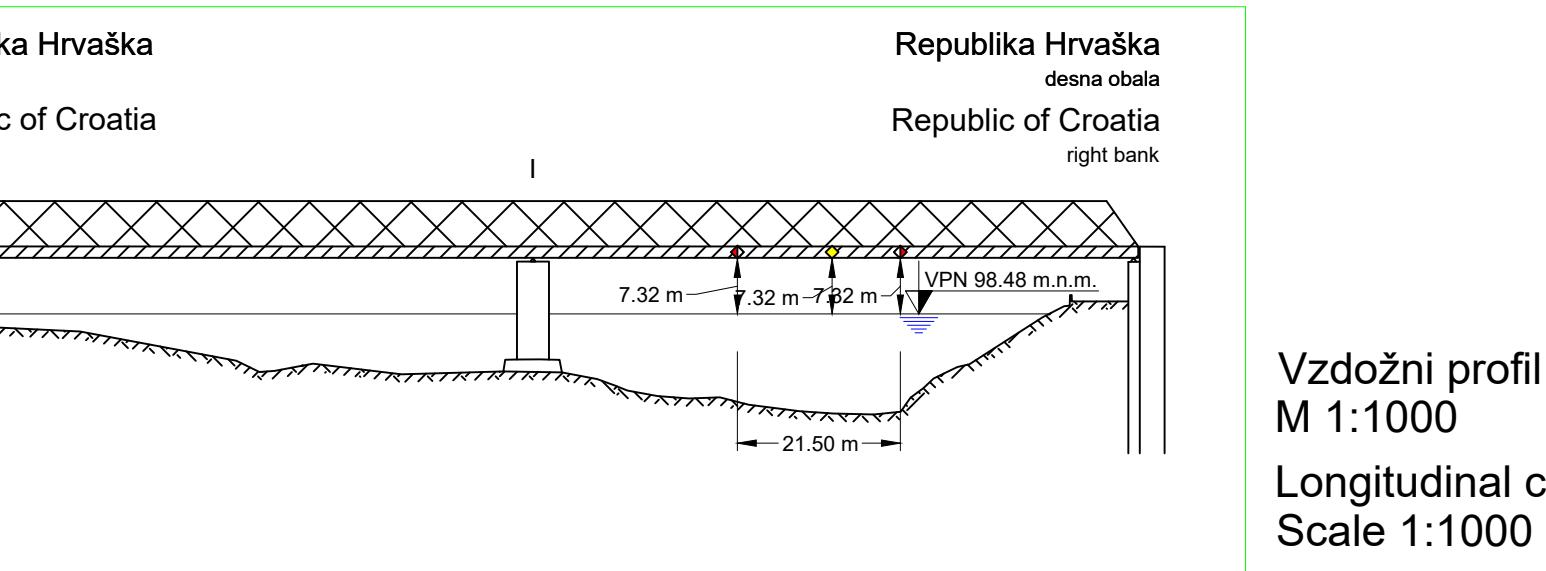
Merodajna vodomerna postaja Crnac, rkm 588.2, kota "0"=91.34 m.n.m.

Railway bridge Sisak, Kupa River, rkm 2.1

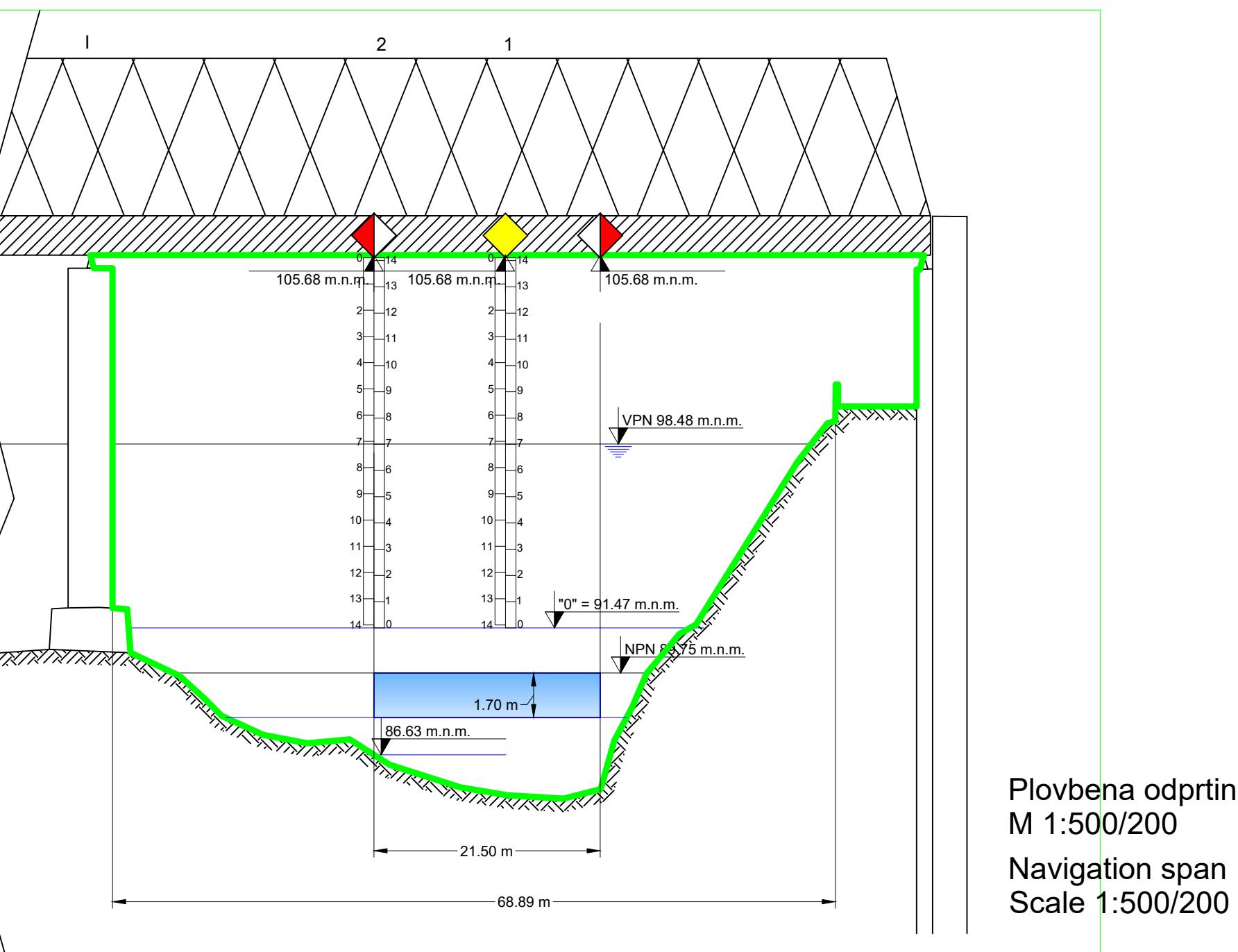
Referent water gauge Crnac, rkm 588.2, water level "0"=91.34 m.a.s.l.



Situacija
M 1:5000
Layout
Scale 1:5000

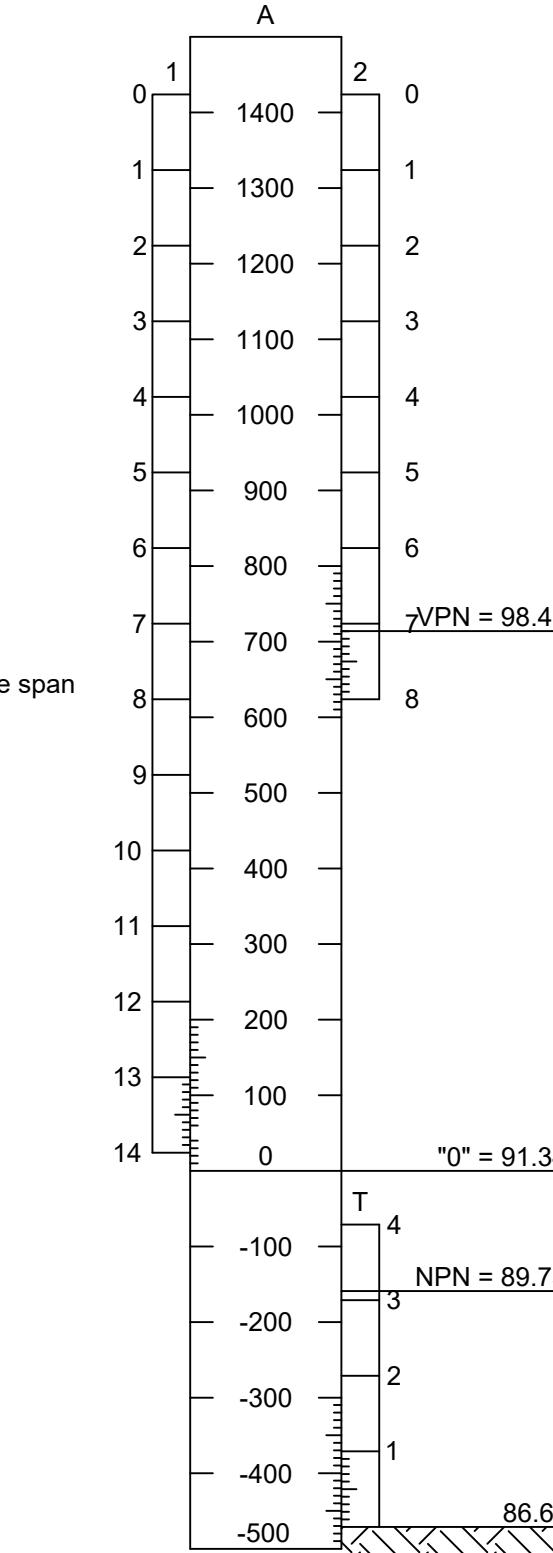


Vzdožni profil
M 1:1000
Longitudinal cross section
Scale 1:1000



- VPN - visoki plovbeni nivo v profilu mosta
- NPN - nizki plovbeni nivo v profilu mosta
- vse kote so v m.n.m.
- podatki o gabaritih stebrov in temeljev stebrov mostov niso zanesljivi

- VPN - high navigation water level (bridge cross section)
- NPN - low navigation water level (bridge cross section)
- all levels are in m.a.s.l.
- piers and piers foundation dimensions are not reliable information



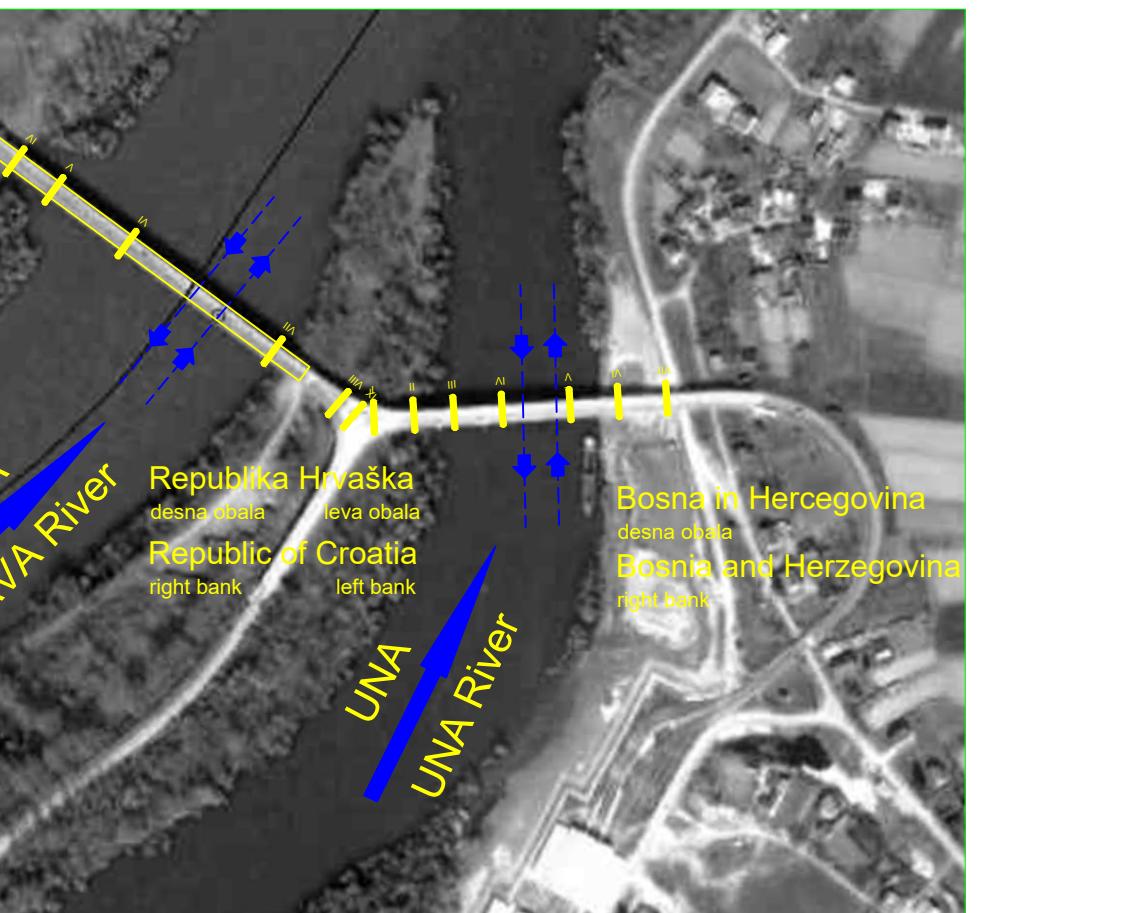
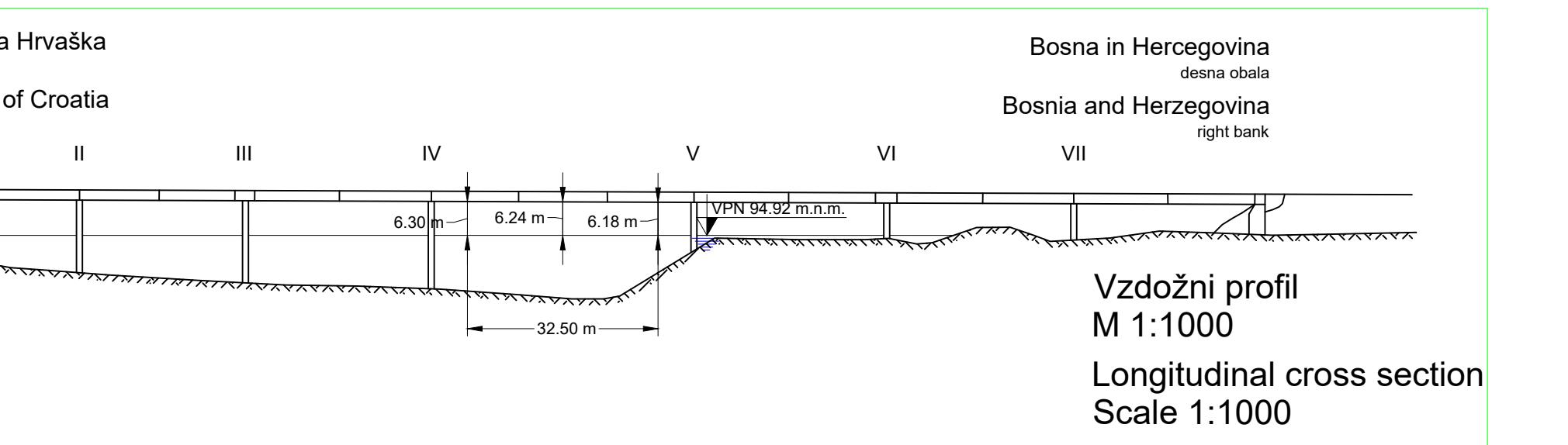
INTERNATIONAL SAVA RIVER BASIN COMMISSION

Cestni most Jasenovac, Una, rkm 0.0

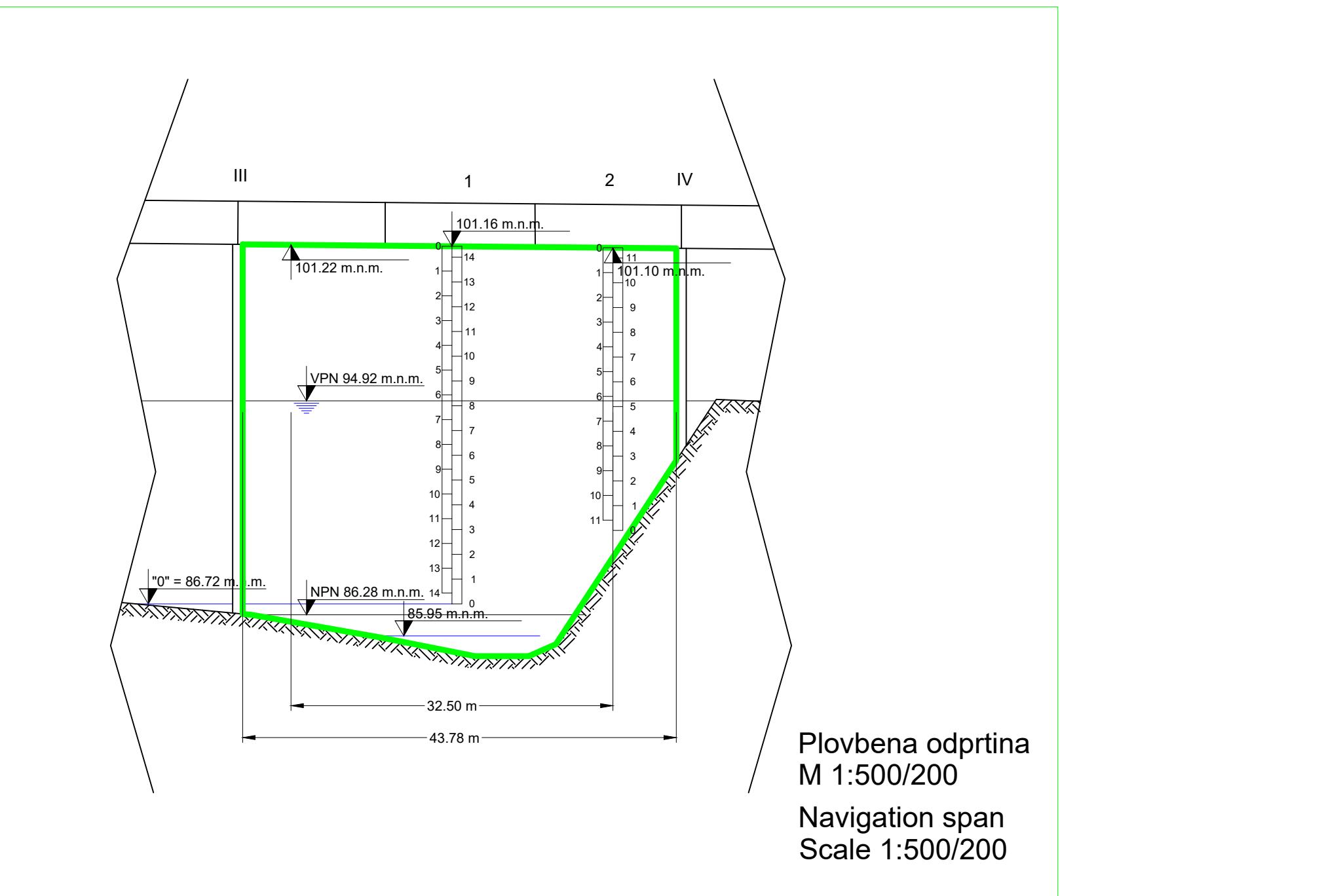
erodajna vodomerna postaja Jasenovac, rkm 516.2, kota "0"=86

Road bridge Jasenovac, Una River, rkm 0.05

Referent water gauge Jasenovac, rkm 516.2, water level "0"=86.



acija
:5000
out
le 1:5000



A. Nivo vode na vodo

1. Svetla višina v sredini plov
 2. Svetla višina na robu plov

T. Globina plovbeneqa obmo

Opomba:
zmanjšati svetlo višino plovbe

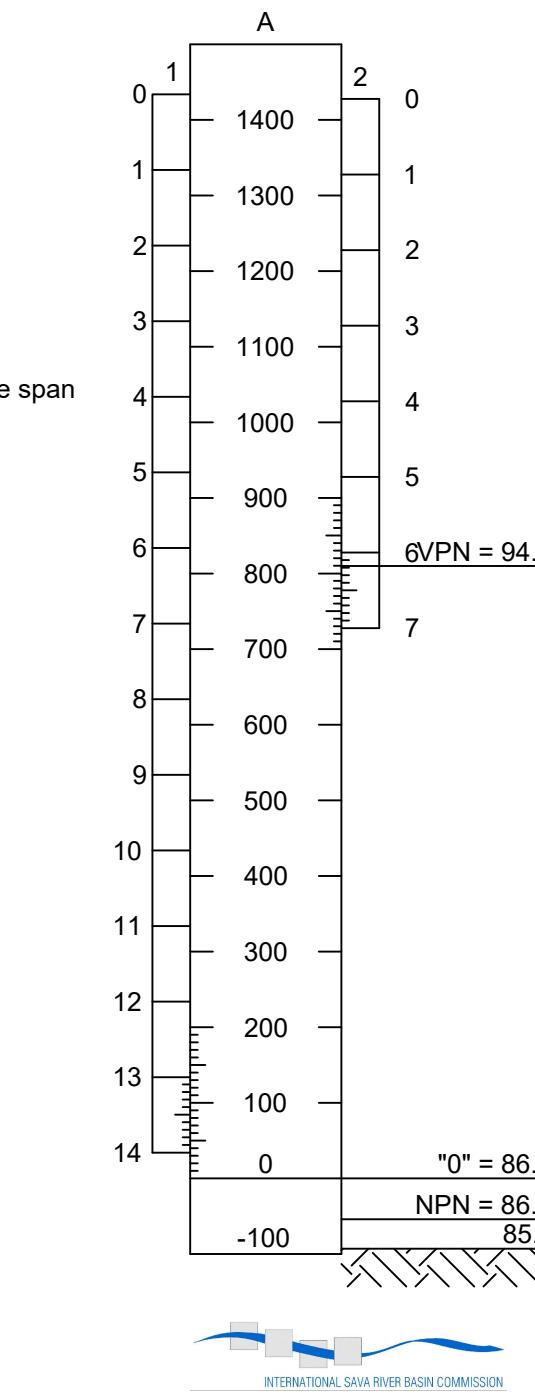
- A. Water level at water gauge
 - 1. Vertical bridge clearance to middle of navigation channel
 - 2. Vertical bridge clearance at the fairway side

T. Fairway depth in navigation bridge span

Remark:
Vertical clearance should

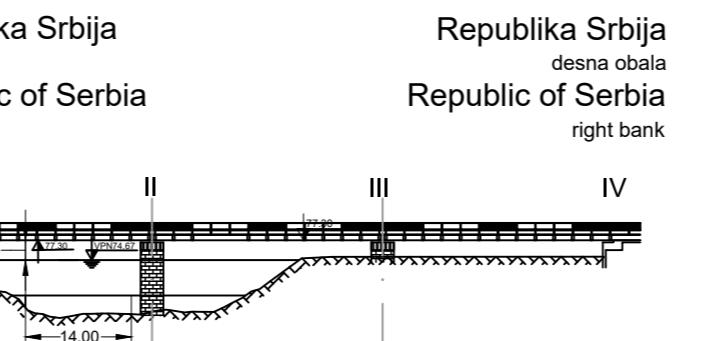
I - visoki plovbeni nivo v profilu mosta
II - nizki plovbeni nivo v profilu mosta
kote so v m.n.m.
atki o gabaritih stebrov in temeljev ste

I - high navigation water level (bridge)
 N - low navigation water level (bridge)
 Levels are in m.a.s.l.
 and piers foundation dimensions are



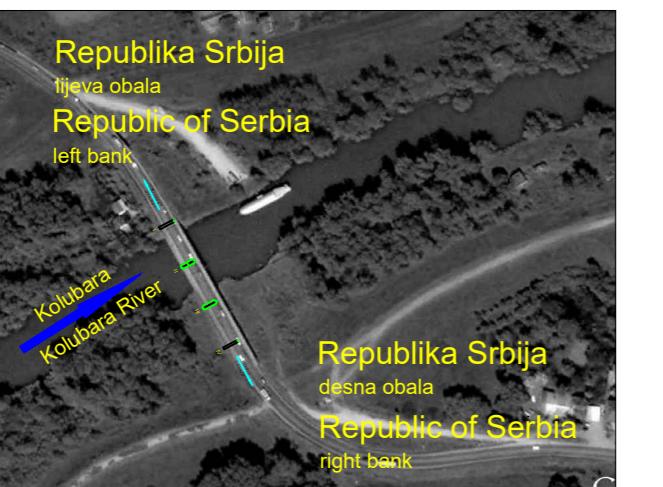
Cestni most "Obrenovac", Kolubara, rkm 2.96

Merodajna vodomerna postaja Beograd, reka Sava rkm 0.82, kota "0"=68.28 m.n.m.

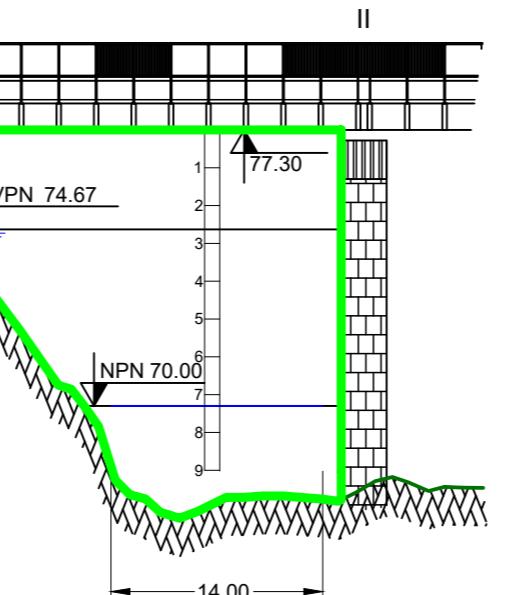


Vzdožni profil
M 1:1000
Longitudinal cross section
Scale 1:1000

- A. Nivo vode na vodomerni postaji
- 1. Svetla višina v sredini plovbene odprtine
- 2. Svetla višina na robu plovbenega območja



Situacija
M 1:5000
Layout
Scale 1:5000



Plovbena odprtina
M 1:500/200
Navigation span
Scale 1:500/200

- VPN - visoki plovbeni nivo v profilu mosta
- NPN - nizki plovbeni nivo v profilu mosta
- vse kote so v m.n.m.
- prečni profil v mostni odprtini odgovarja prečnemu profilu na 35m gorvodno od mosta
- podatki o gabaritih stebrov in temeljih stebrov mostov niso zanesljivi

- VPN - high navigation water level (bridge cross section)
- NPN - low navigation water level (bridge cross section)
- all levels are in m.a.s.l.
- all dimensions are in meters
- piers and piers foundation dimensions are not reliable information

Road bridge "Obrenovac", Kolubara River, rkm 2.96

Referent water gauge Belgrade, Sava River rkm 0.82, water level "0"= 86.28 m.a.s.l.

Cestni most Brežice, Sava, rkm 719.4

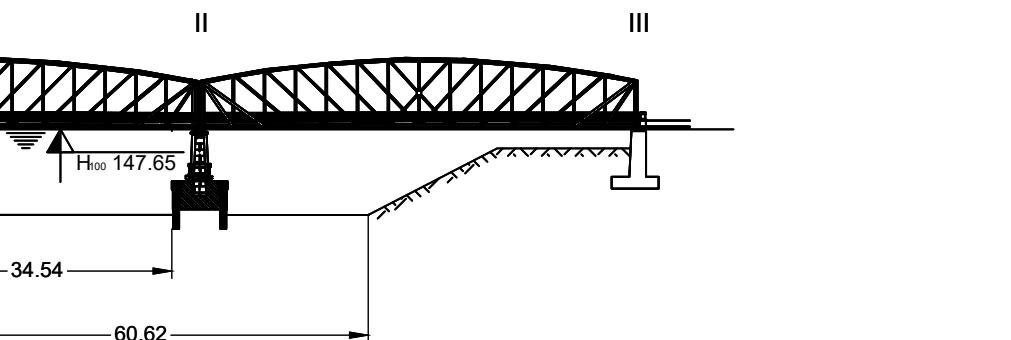
Merodajna vodomerna postaja Čatež I, rkm 717.9, kota "0"=137.28 m.n.m.

Road bridge Brežice, Sava River, rkm 719.4

Referentna vodna stopnja Čatež I, rkm 717.9, vodna raven "0"=137.28 m.a.s.l.

Republika Slovenija
leva obala
Republic of Slovenia
left bank

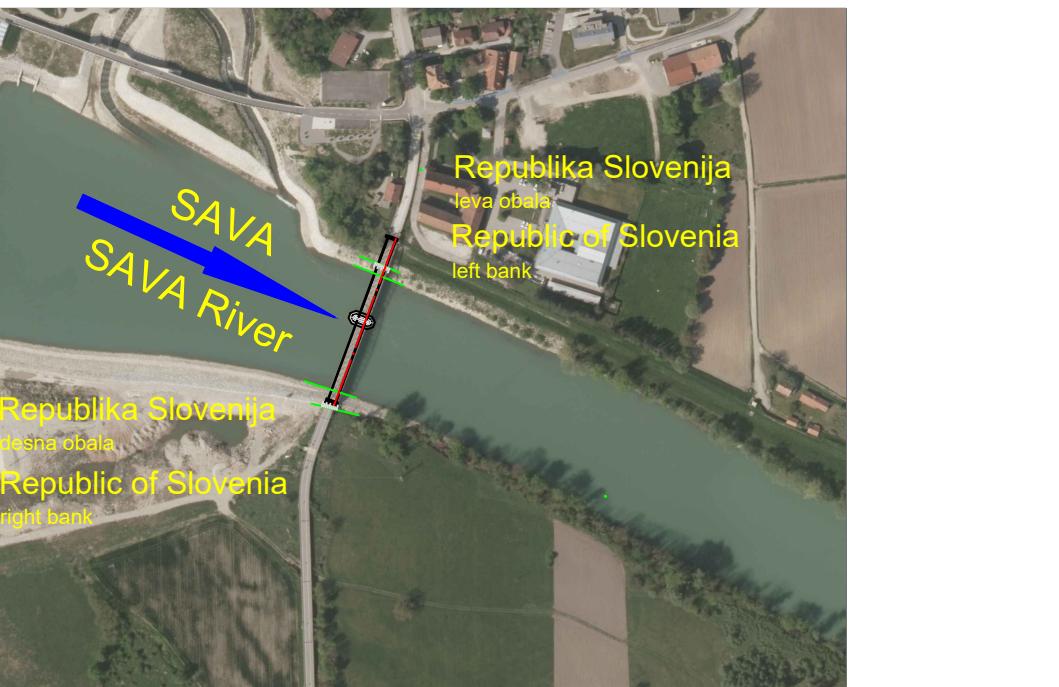
Republika Slovenija
desna obala
Republic of Slovenia
right bank



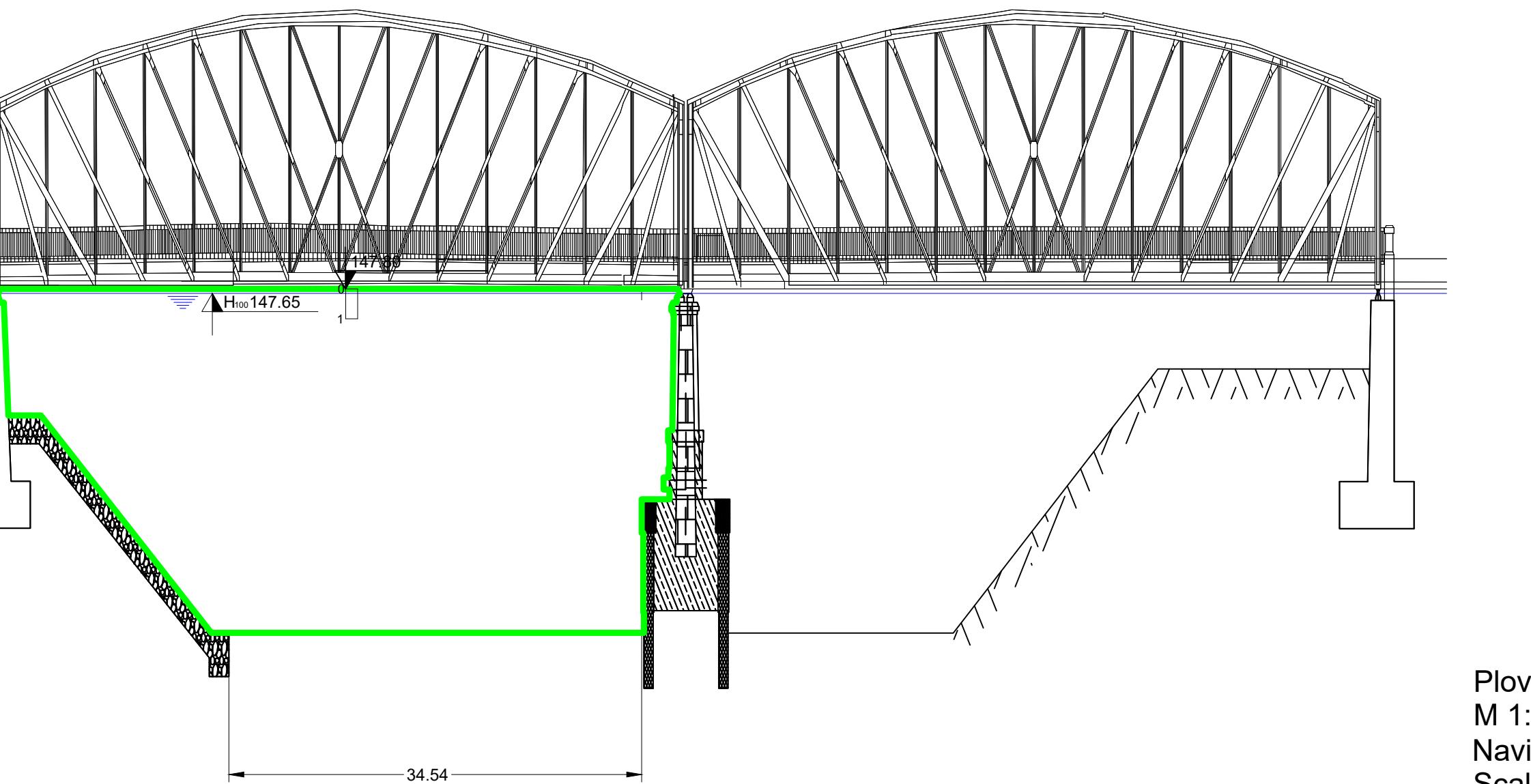
Vzdožni profil
M 1:1000
Longitudinal cross section
Scale 1:1000

A. Nivo vode na vodomerni postaji

1. Svetla višina v sredini plovbene odprtine
2. Svetla višina na robu plovbenega območja



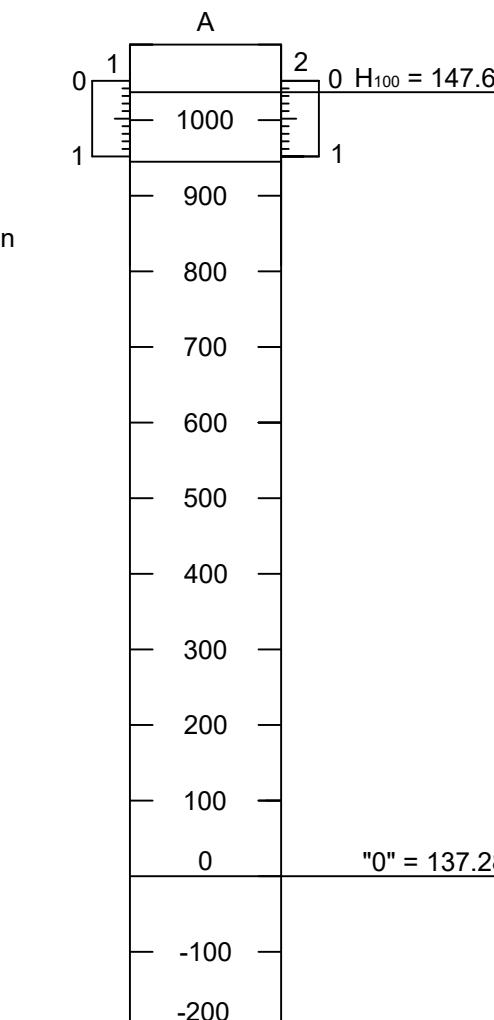
Situacija
M 1:5000
Layout
Scale 1:5000

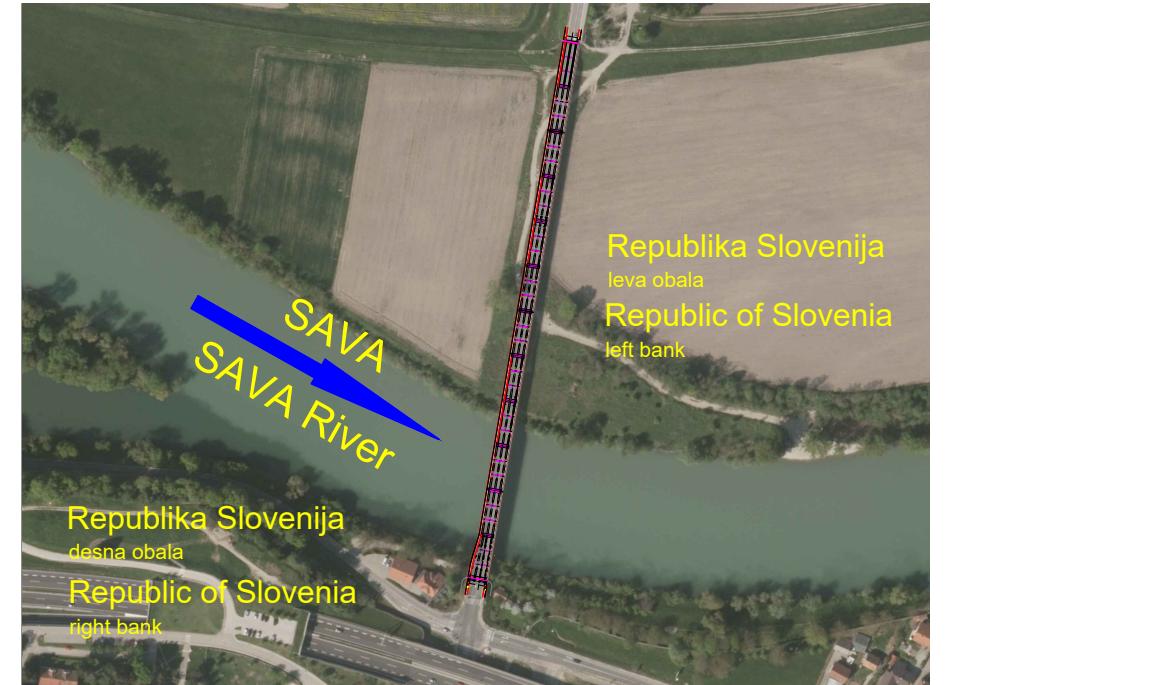


Plovbena odprtina
M 1:500/200
Navigation span
Scale 1:500/200

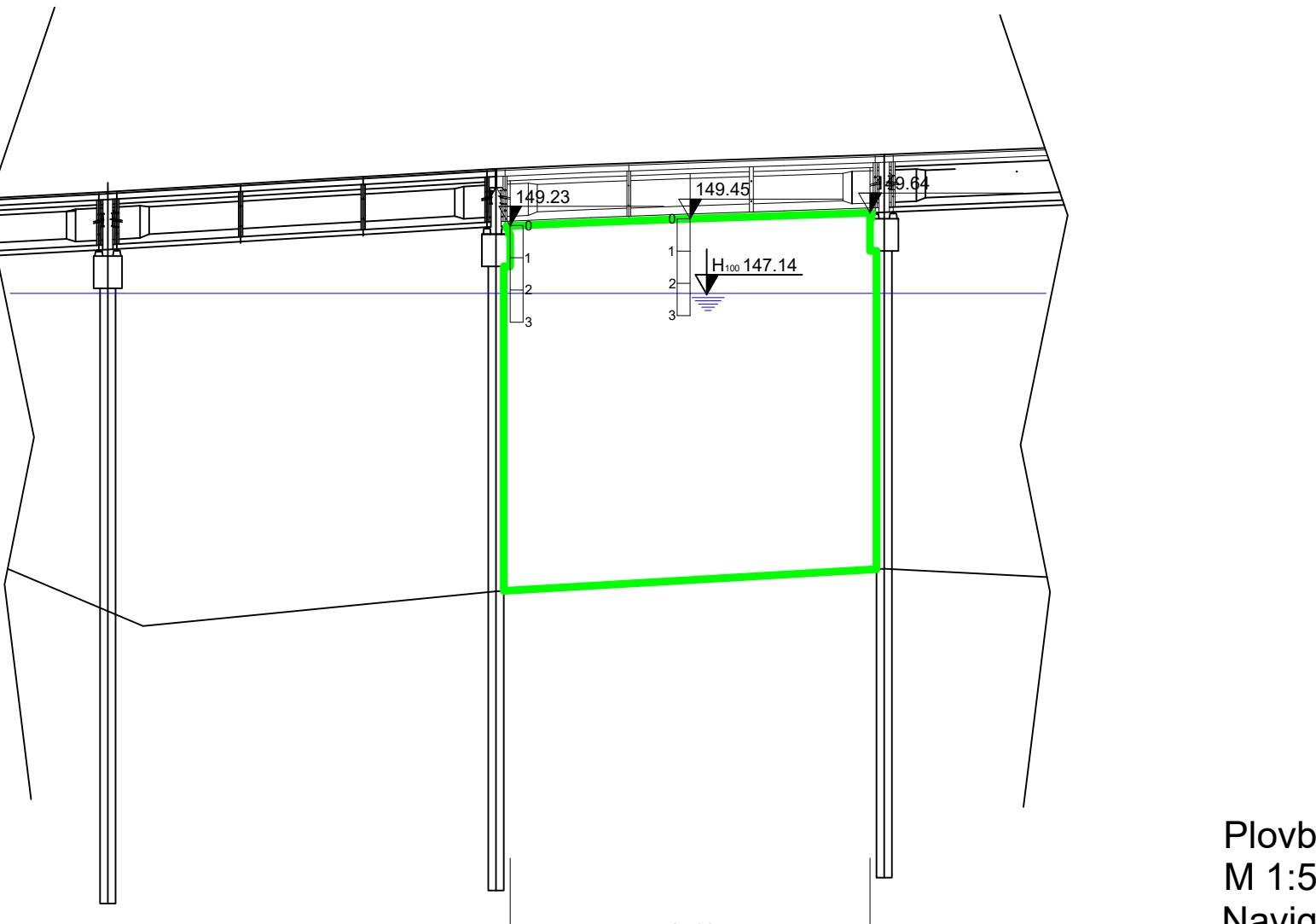
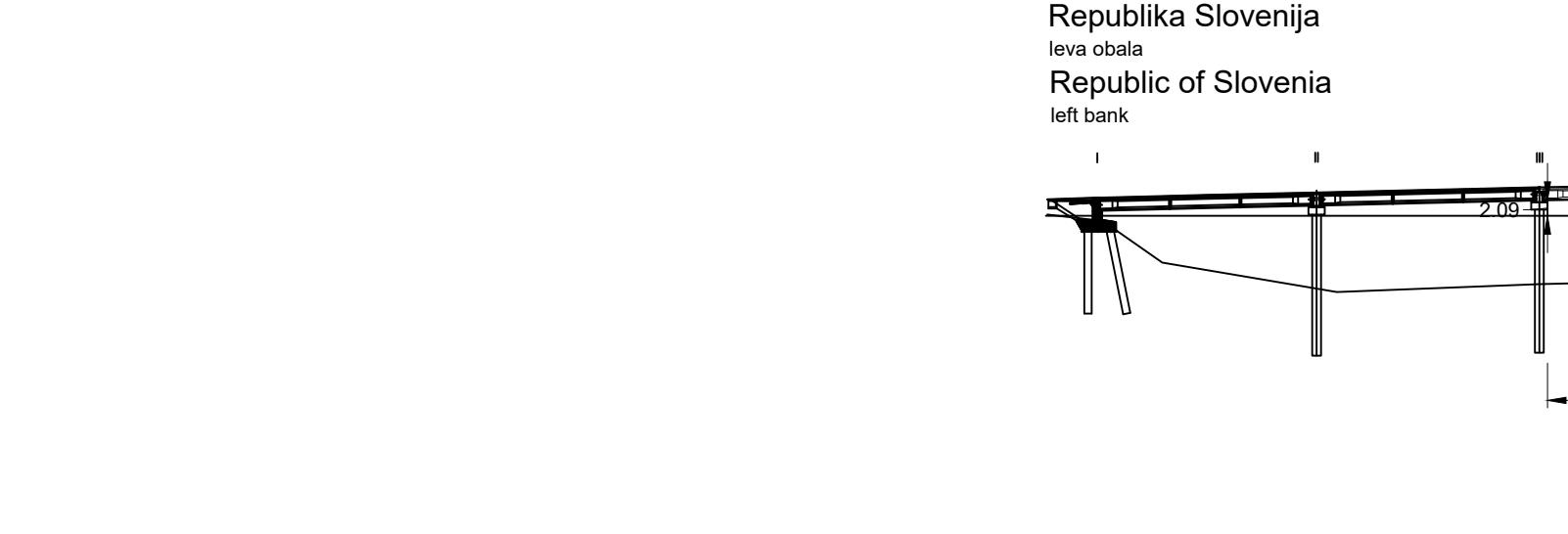
- VPN - visoki plovbeni nivo v profilu mosta
- vse kote so v m.n.m.
- vse dimenzije so v metrih
- podatki o gabaritih stebrov in temeljih stebrov mostov niso zanesljivi

- VPN - high navigation water level (bridge cross section)
- all levels are in m.a.s.l.
- all dimensions are in meters
- pier and pier foundation dimensions are not reliable information





Situacija
M 1:5000
Layout
Scale 1:5000



Cestni most Čatež, Sava, rkm 718.4

Merodajna vodomerna postaja Čatež I, rkm 717.9, kota "0"=137.28 m.n.m.

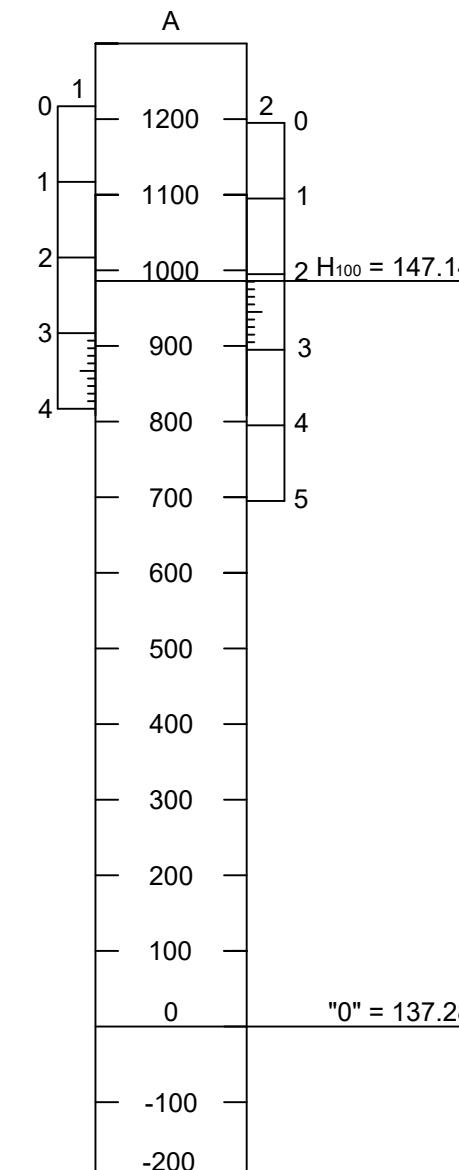
Road bridge Čatež, Sava River, rkm 718.4

Referent water gauge Čatež I, rkm 717.9, water level "0"=137.28 m.a.s.l.

A. Nivo vode na vodomerni postaji

1. Svetla višina v sredini plovbene odprtine

2. Svetla višina na robu plovbenega območja



- VPN - visoki plovbeni nivo v profilu mosta

- vse kote so v m.n.m.

- vse dimenzije so v metrih

- podatki o gabaritih stebrov in temeljev stebrov mostov niso zanesljivi

- VPN - high navigation water level (bridge cross section)

- all levels are in m.a.s.l.

- all dimensions are in meters

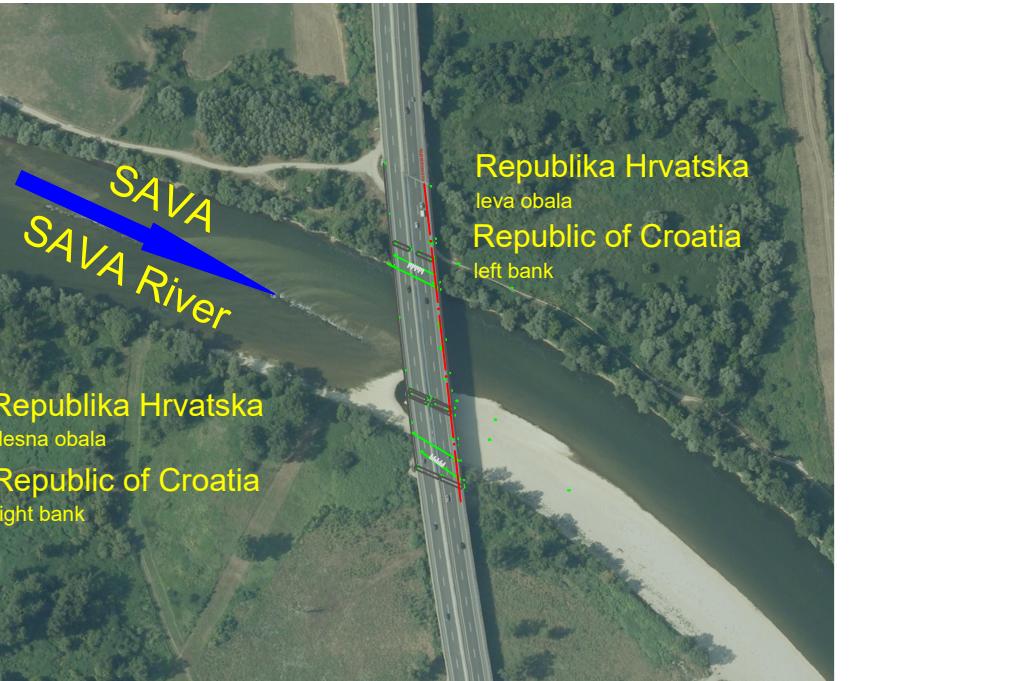
- piers and piers foundation dimensions are not reliable information

Cestni most Zaprešić, Sava, rkm 698.6

Merodajna vodomerna postaja Podsused, rkm 695.6, kota "0"=119.13 m.n.m.

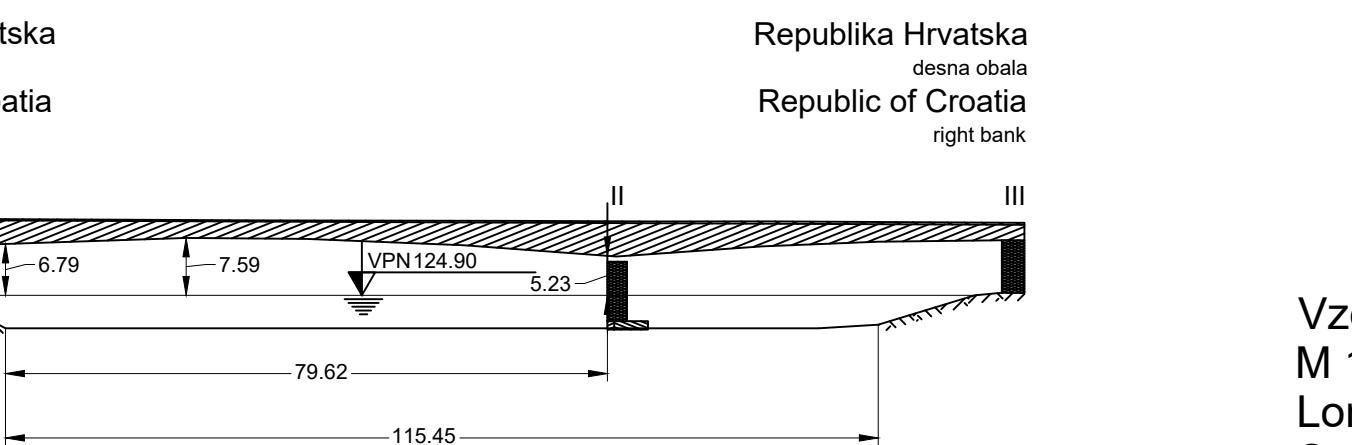
Road bridge Zaprešić, Sava River, rkm 698.6

Referentna vodomerna postaja Podsused, rkm 695.6, voda na ravnini "0"=119.13 m.a.s.l.



Situacija
M 1:5000
Layout
Scale 1:5000

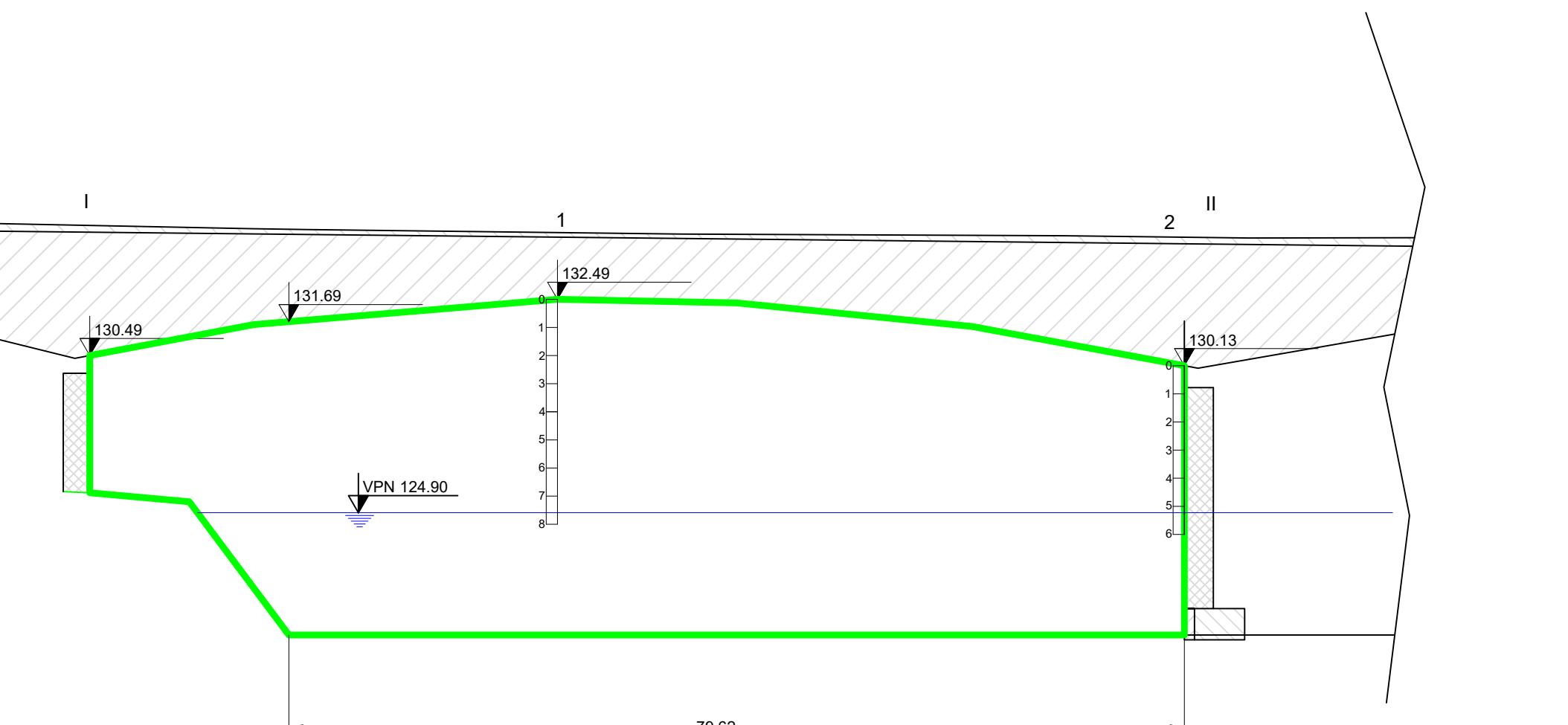
- VPN - visoki plovbeni nivo v profilu mosta
- vse kotje so v m.n.m.
- vse dimenzijs so v metrih
- podatki o gabaritih stebrov in temeljih stebrov mostov niso zanesljivi



Vzdožni profil
M 1:1000
Longitudinal cross section
Scale 1:1000

A. Nivo vode na vodomerni postaji

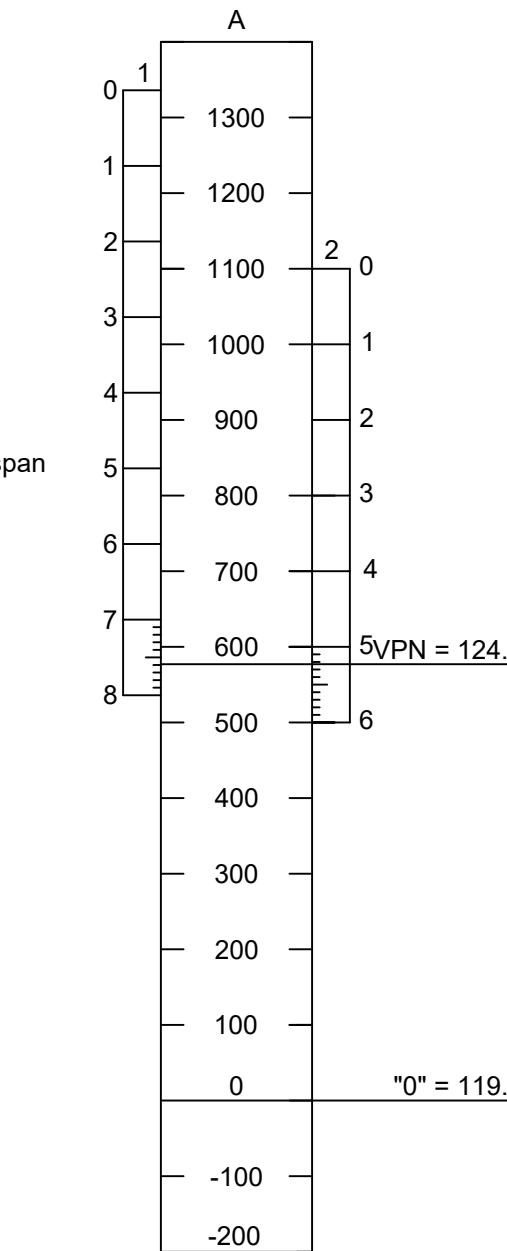
1. Svetla višina v sredini plovbene odprtine
2. Svetla višina na robu plovbenega območja



Plovbena odprtina
M 1:500/200
Navigation span
Scale 1:500/200

- VPN - visoki plovbeni nivo v profilu mosta
- vse kotje so v m.n.m.
- vse dimenzijs so v metrih
- podatki o gabaritih stebrov in temeljih stebrov mostov niso zanesljivi

- VPN - high navigation water level (bridge cross section)
- all levels are in m.a.s.l.
- all dimensions are in meters
- pier and pier foundation dimensions are not reliable information



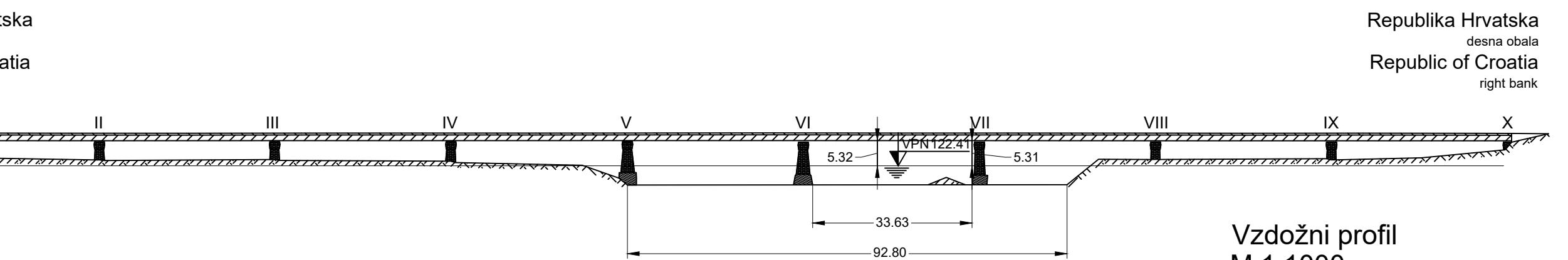
Cestni most Podsused, Sava, rkm 696.6

Merodajna vodomerna postaja Podsused, rkm 695.6, kota "0"=119.13 m.n.m.

Road bridge Podsused, Sava River, rkm 696.6

Referentna vodometna postaja Podsused, rkm 695.6, voda na ravnini "0"=119.13 m.a.s.l.

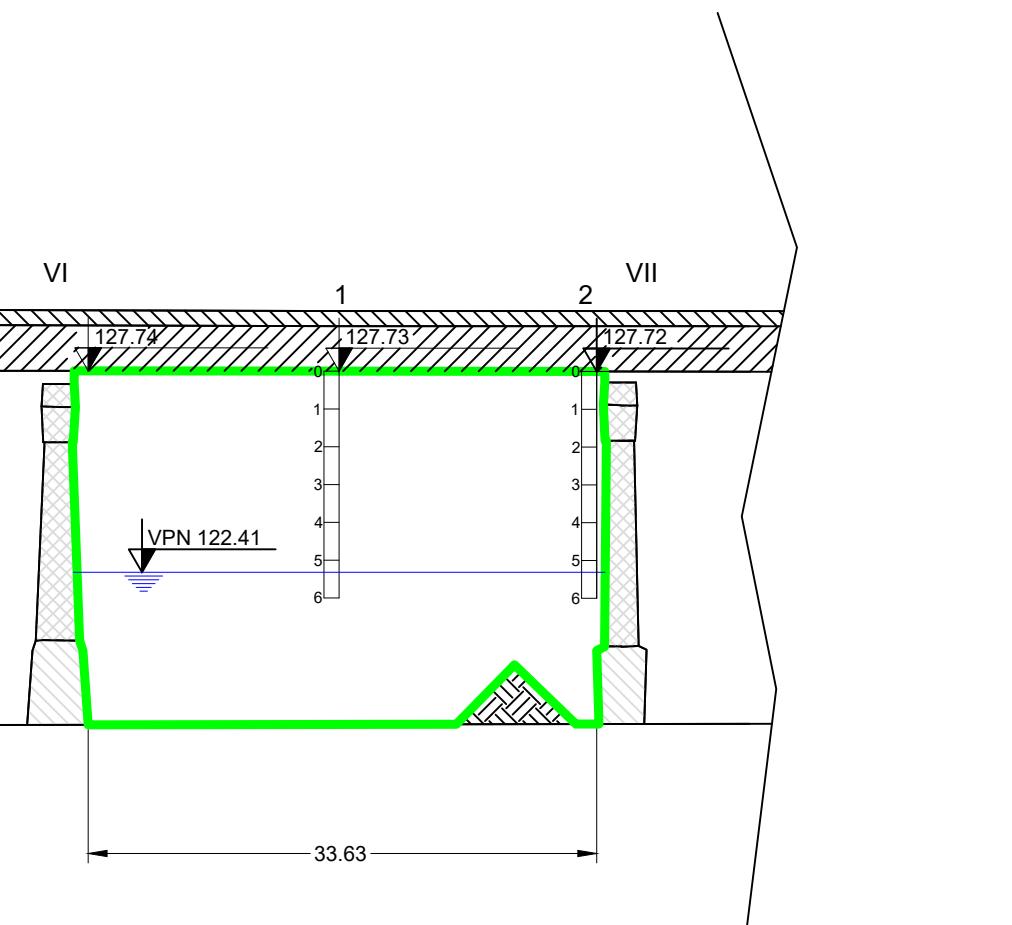
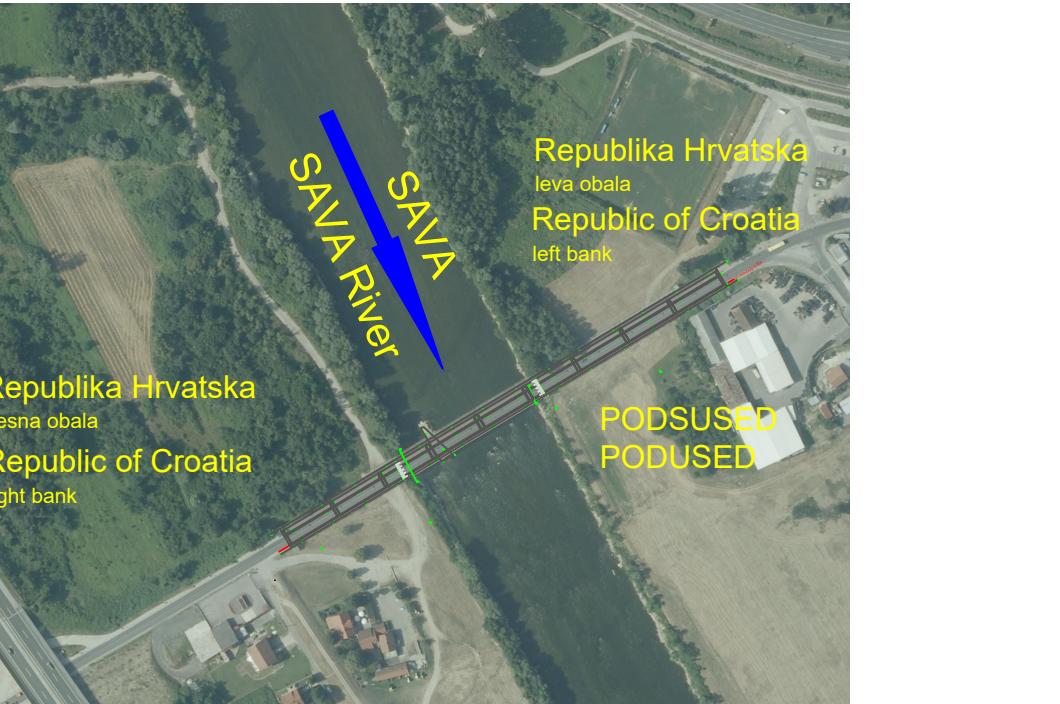
Republika Hrvatska
leva obala
Republic of Croatia
left bank



A. Nivo vode na vodomerni postaji

1. Svetla višina v sredini plovbene odprtine

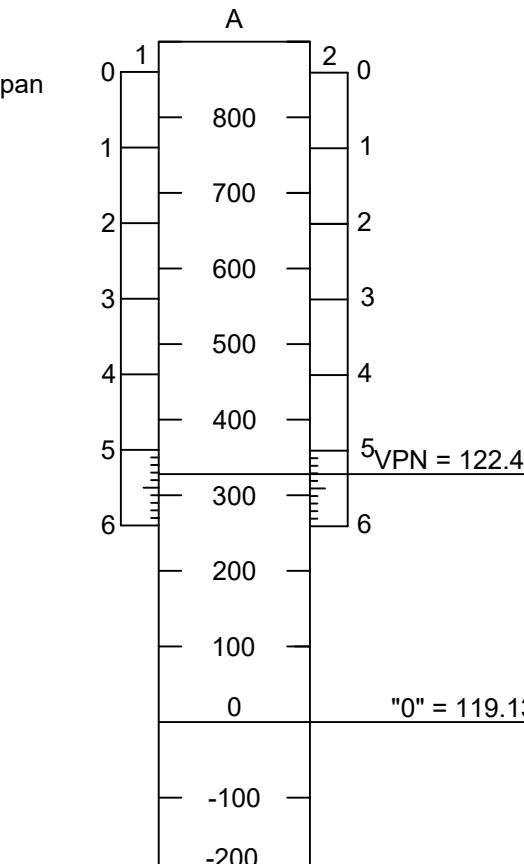
2. Svetla višina na robu plovbenega območja



A. Water level at water gauge

1. Vertical bridge clearance to middle of navigation bridge span

2. Vertical bridge clearance at the navigation bridge span



- VPN - visoki plovbeni nivo v profilu mosta

- vse kote so v m.n.m.

- vse dimenziije so v metrih

- podatki o gabaritih stebrov in temeljevih stebrov mostov niso zanesljivi

- VPN - high navigation water level (bridge cross section)

- all levels are in m.a.s.l.

- all dimensions are in meters

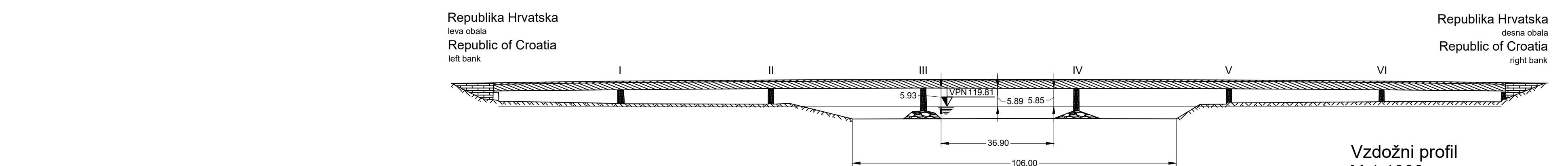
- piers and pier foundation dimensions are not reliable information

Cestni most Jankomir, Sava, rkm 693.6

Merodajna vodomerna postaja Podsused, rkm 695.6, kota "0"=119.13 m.n.m.

Road bridge Jankomir, Sava River, rkm 693.6

Referentna vodomerna postaja Podsused, rkm 695.6, voda na ravnini "0"=119.13 m.a.s.l.

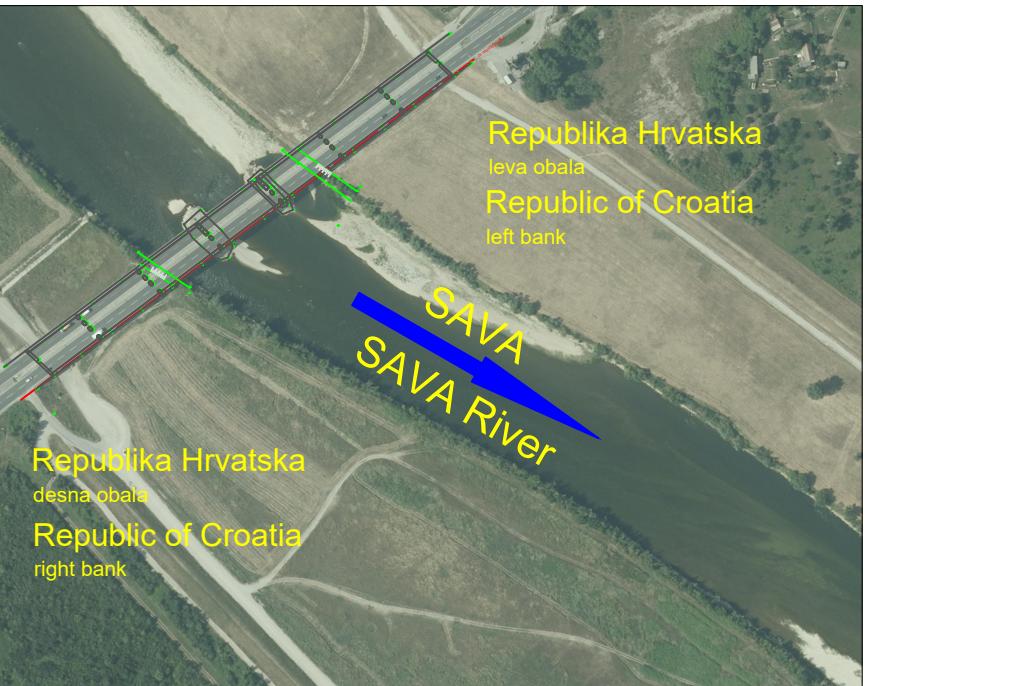


Vzdožni profil
M 1:1000
Longitudinal cross section
Scale 1:1000

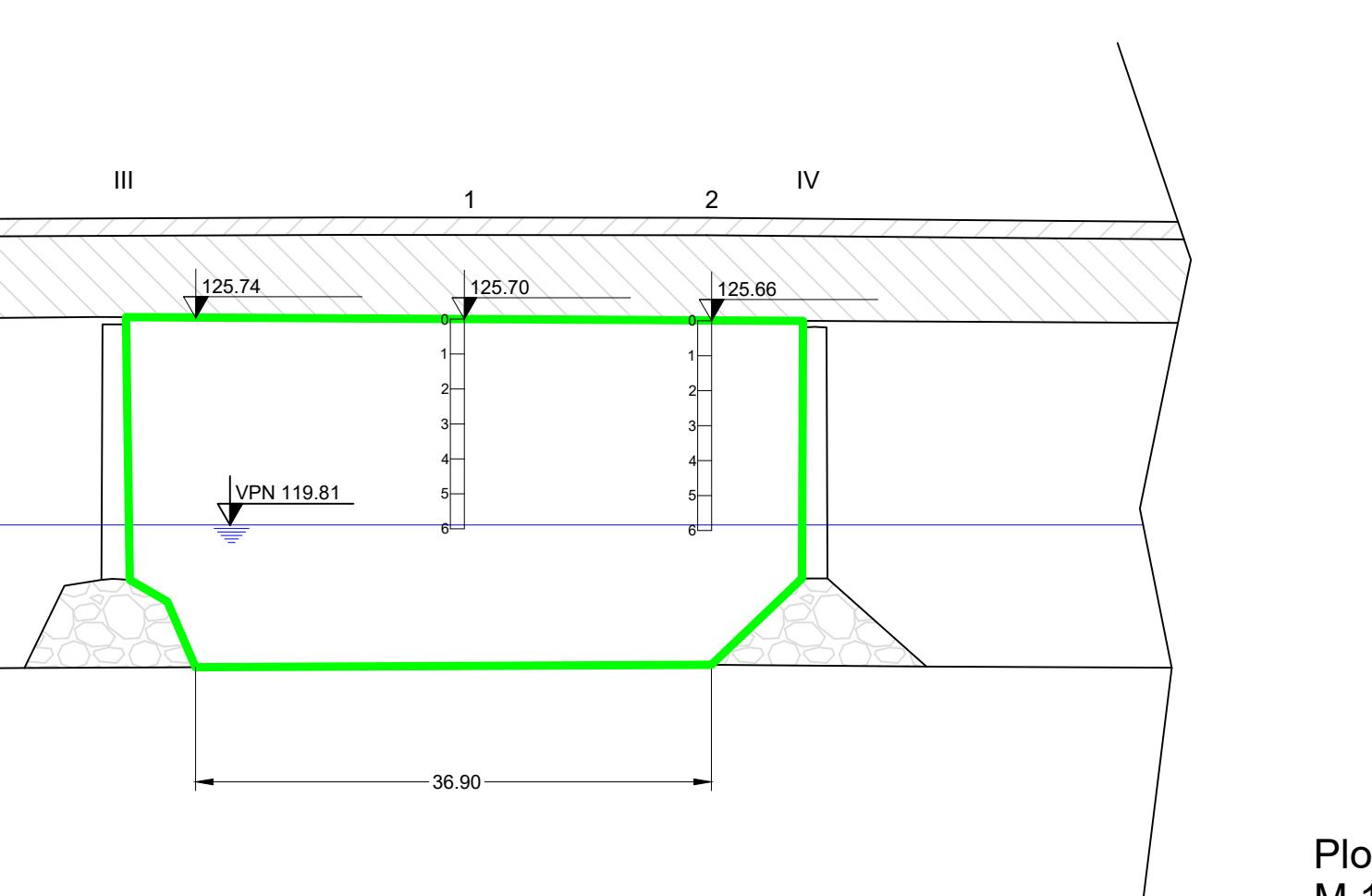
A. Nivo vode na vodomerni postaji

1. Svetla višina v sredini plovbenega odprtine

2. Svetla višina na robu plovbenega območja



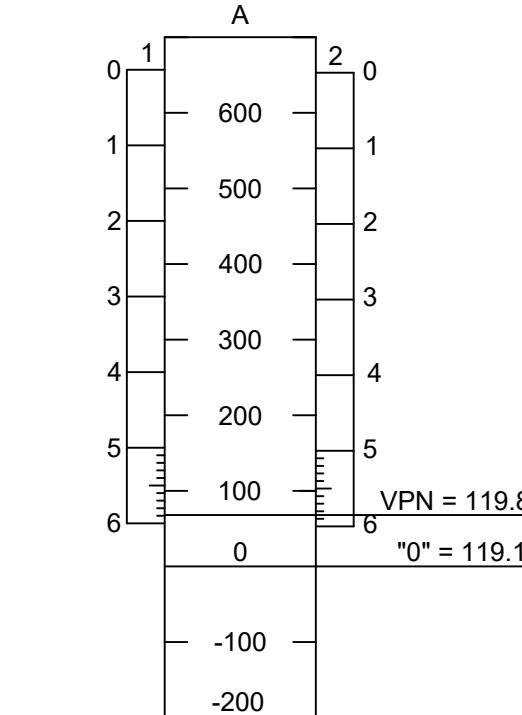
Situacija
M 1:5000
Layout
Scale 1:5000



Plovbena odprtina
M 1:500/200
Navigation span
Scale 1:500/200

- VPN - visoki plovbeni nivo v profilu mosta
- vse kote so v m.n.m.
- vse dimenzije so v metrih
- podatki o gabaritih stebrov in temeljih stebrov mostov niso zanesljivi

- all levels are in m.a.s.l.
- all dimensions are in meters
- pier and pier foundation dimensions are not reliable information

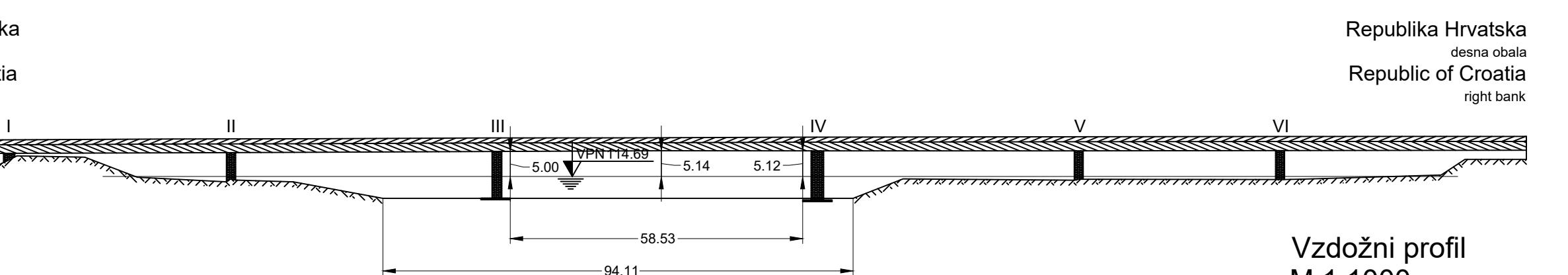


Cestni "Jadranski" most, Sava, rkm 684.8

Merodajna vodomerna postaja Zagreb, rkm 687.7, kota "0"=112.26 m.n.m.

Road "Jadranski" bridge, Sava River, rkm 684.8

Referentna vodomerna postaja Zagreb, rkm 687.7, voda "0"=112.26 m.a.s.l.

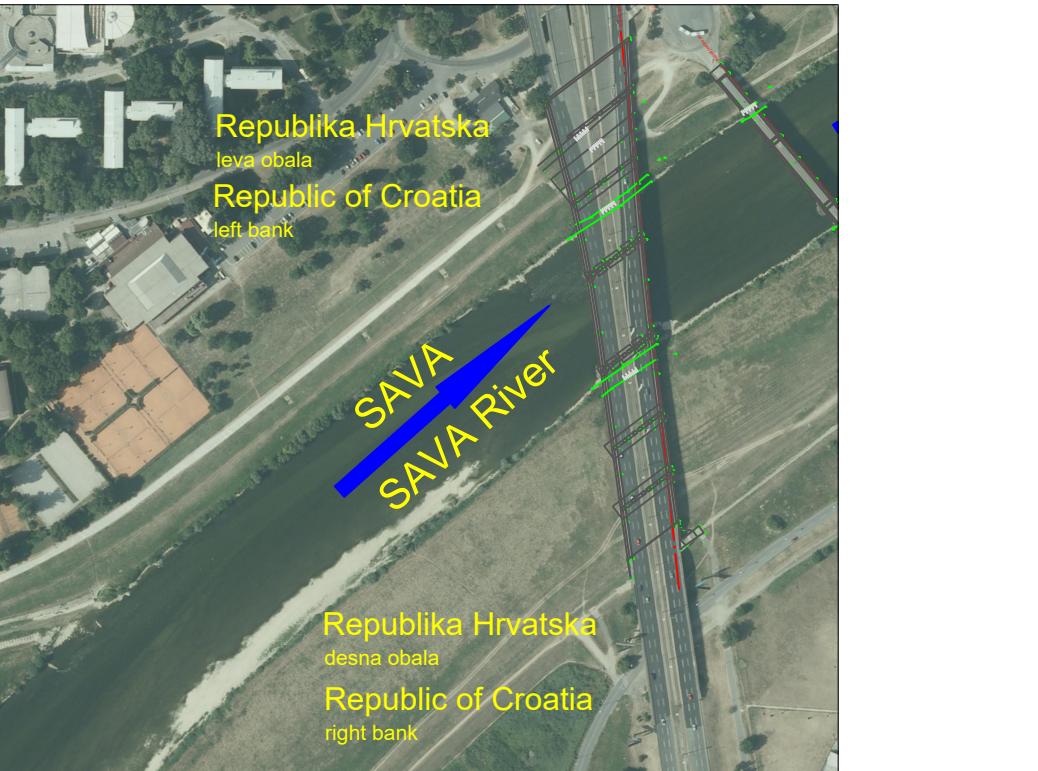


Vzdožni profil
M 1:1000
Longitudinal cross section
Scale 1:1000

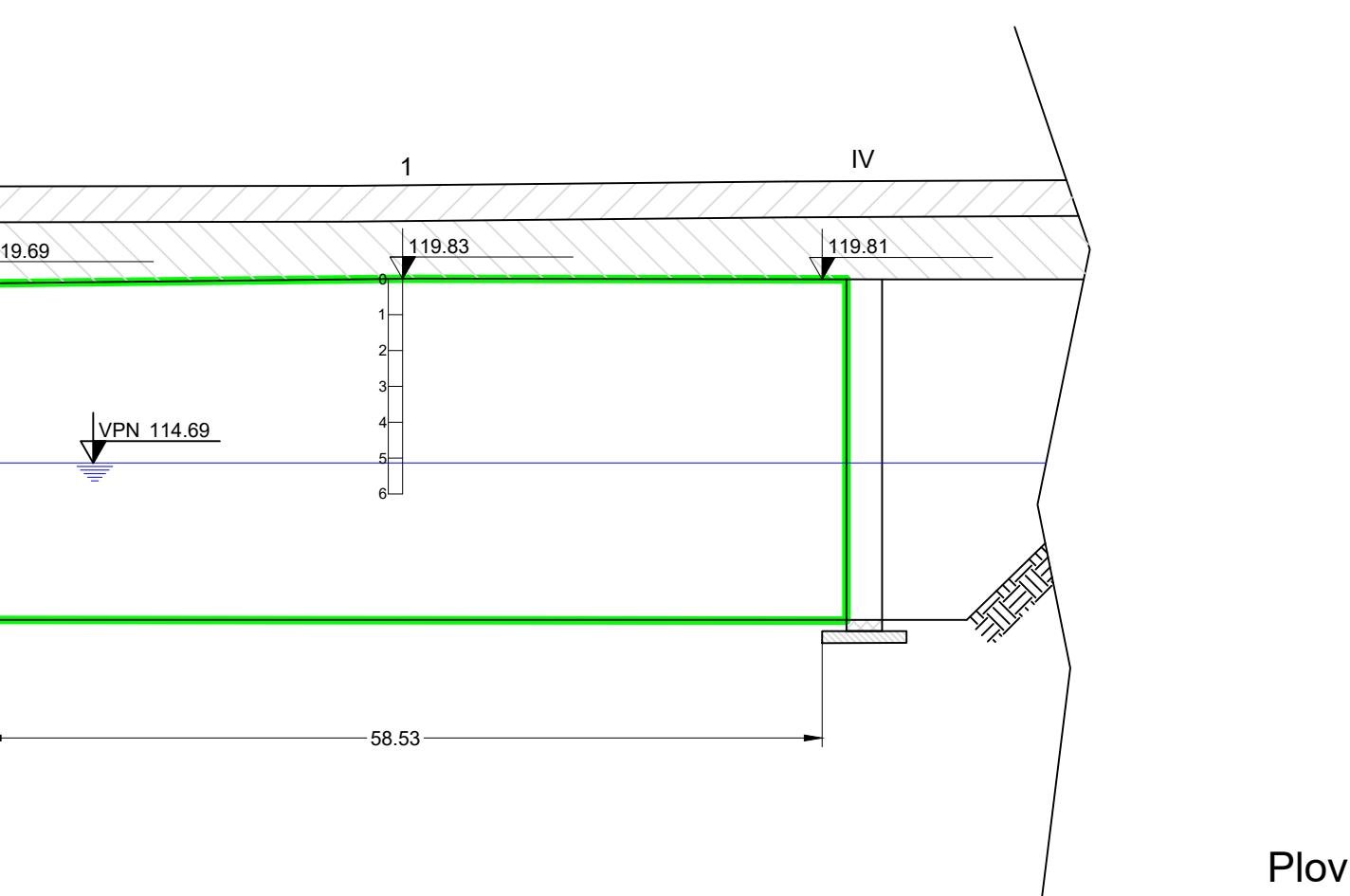
A. Nivo vode na vodomerni postaji

1. Svetla višina v sredini plovbeni odprtine

2. Svetla višina na robu plovbenega območja



Situacija
M 1:5000
Layout
Scale 1:5000



Plovbena odprtina
M 1:500/200
Navigation span
Scale 1:500/200

- VPN - visoki plovbeni nivo v profilu mosta

- vse kote so v m.n.m.

- vse dimenzijs so v metrih

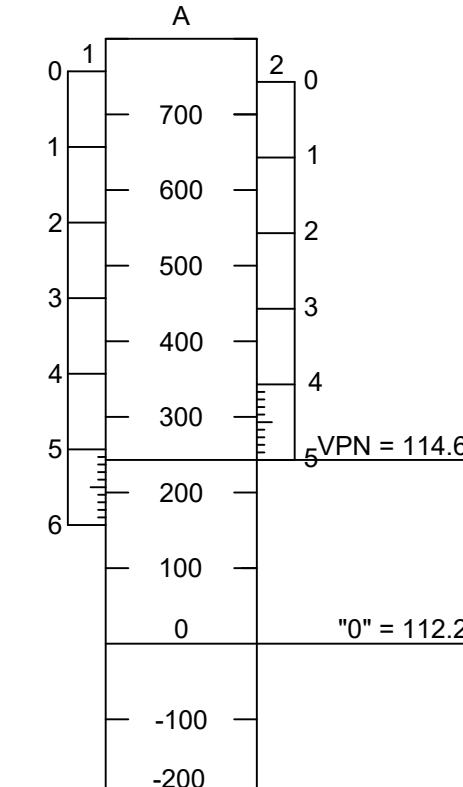
- podatki o gabaritih stebrov in temeljev stebrov mostov niso zanesljivi

- VPN - high navigation water level (bridge cross section)

- all levels are in m.a.s.l.

- all dimensions are in meters

- piers and piers foundation dimensions are not reliable information

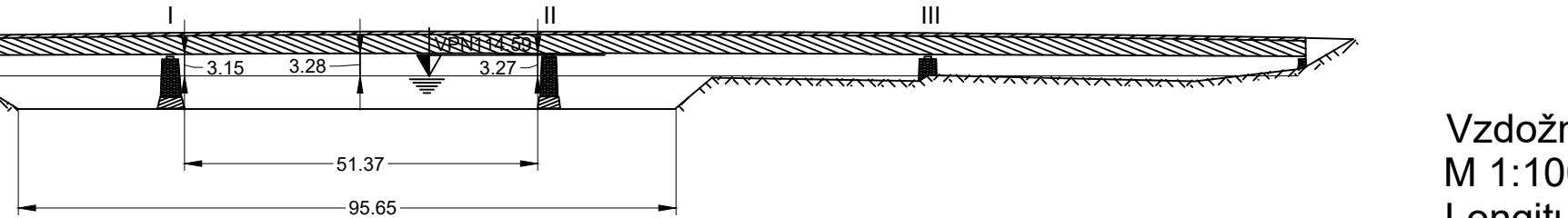


"Savski" most za pešce, Sava, rkm 684.6

Merodajna vodomerna postaja Zagreb, rkm 687.7, kota "0"=112.26 m.n.m.

Republika Hrvatska
leva obala
Republic of Croatia
left bank

Republika Hrvatska
desna obala
Republic of Croatia
right bank

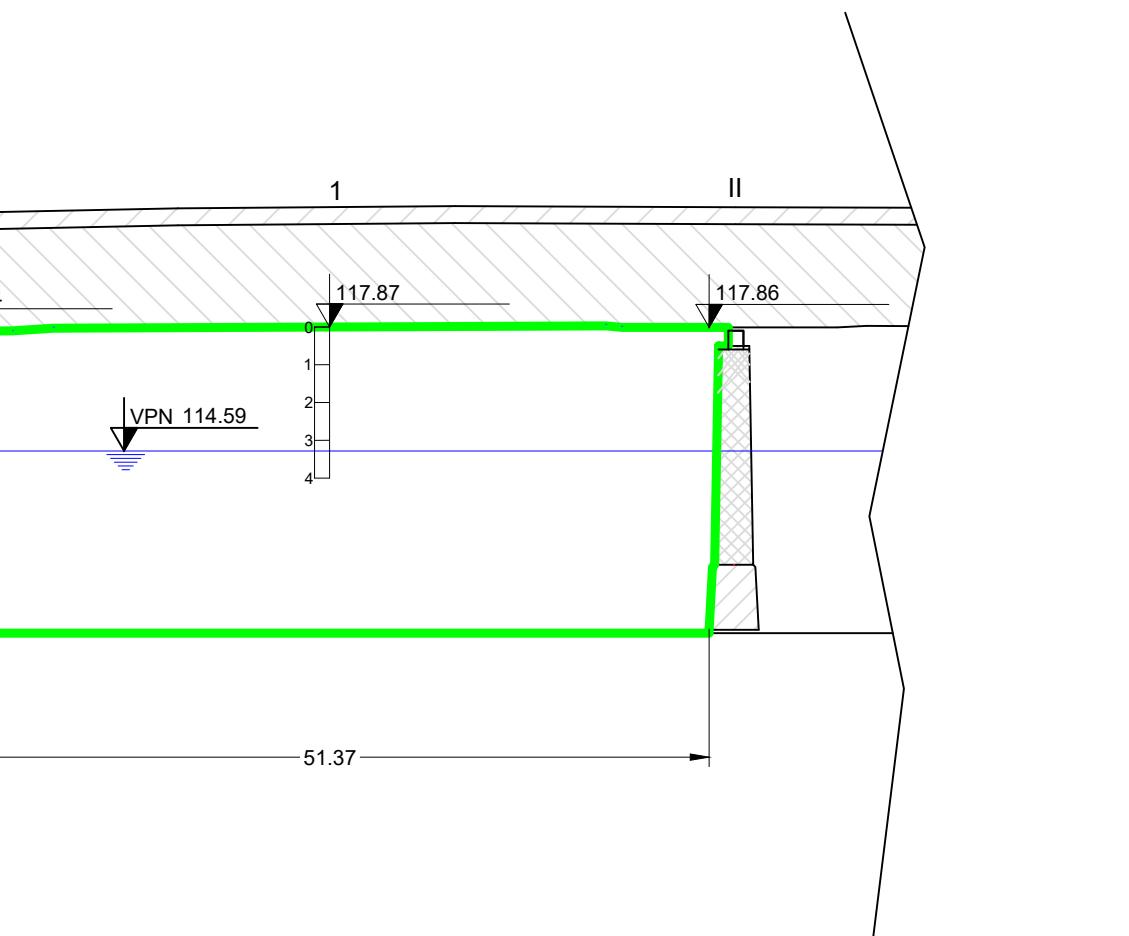


Vzdožni profil
M 1:1000
Longitudinal cross section
Scale 1:1000

- A. Nivo vode na vodomerni postaji
- 1. Svetla višina v sredini plovbene odprtine
- 2. Svetla višina na robu plovbenega območja

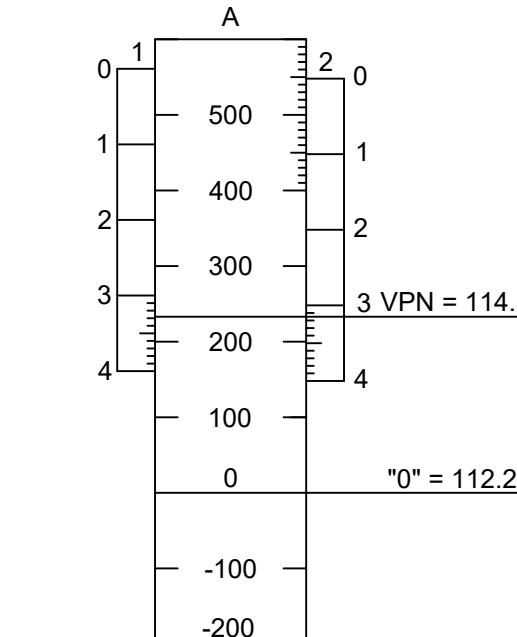


Situacija
M 1:5000
Layout
Scale 1:5000



Plovbena odprtina
M 1:500/200
Navigation span
Scale 1:500/200

- A. Water level at water gauge
- 1. Vertical bridge clearance to middle of navigation bridge span
- 2. Vertical bridge clearance at the navigation bridge span

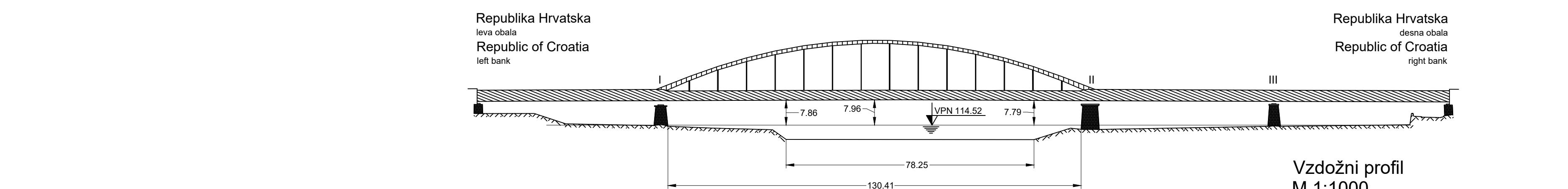


- VPN - visoki plovbeni nivo v profilu mosta
- vse kote so v m.n.m.
- vse dimenzije so v metrih
- podatki o gabaritih stebrov in temeljih stebrov mostov niso zanesljivi

- VPN - high navigation water level (bridge cross section)
- all levels are in m.a.s.l.
- all dimensions are in meters
- pier and piers foundation dimensions are not reliable information



Situacija
M 1:5000
Layout
Scale 1:5000



Vzdožni profil
M 1:1000
Longitudinal cross section
Scale 1:1000

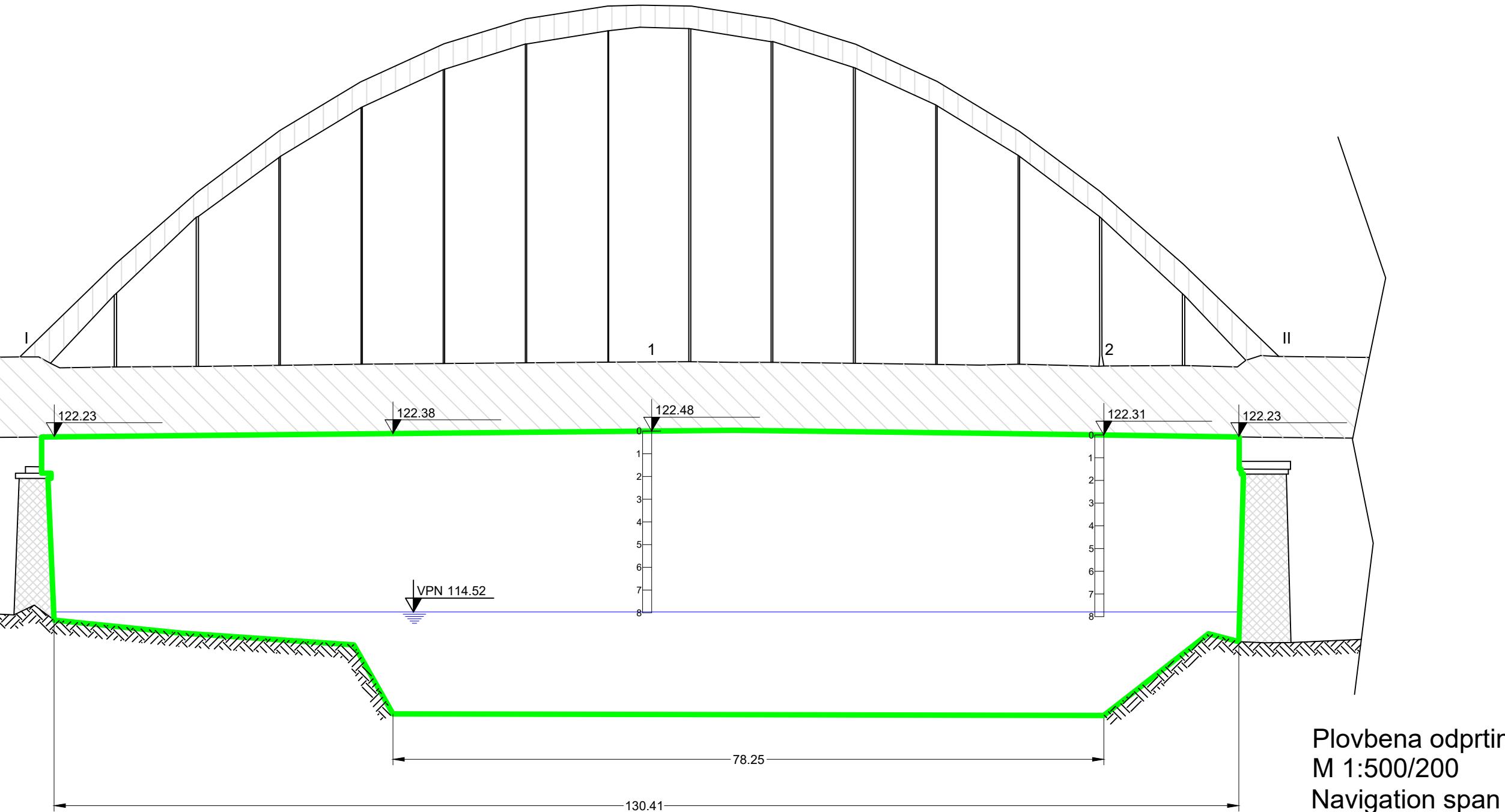
Železniški most "Sava - Zeleni", Sava, rkm 684.4
Merodajna vodomerna postaja Zagreb, rkm 687.7, kota "0"=112.26 m.n.m.

Railway bridge "Sava Zeleni", Sava River, rkm 684.4

Referentna vodomerna postaja Zagreb, rkm 687.7, voda na razine "0"=112.26 m.a.s.l.

A. Nivo vode na vodomerni postaji

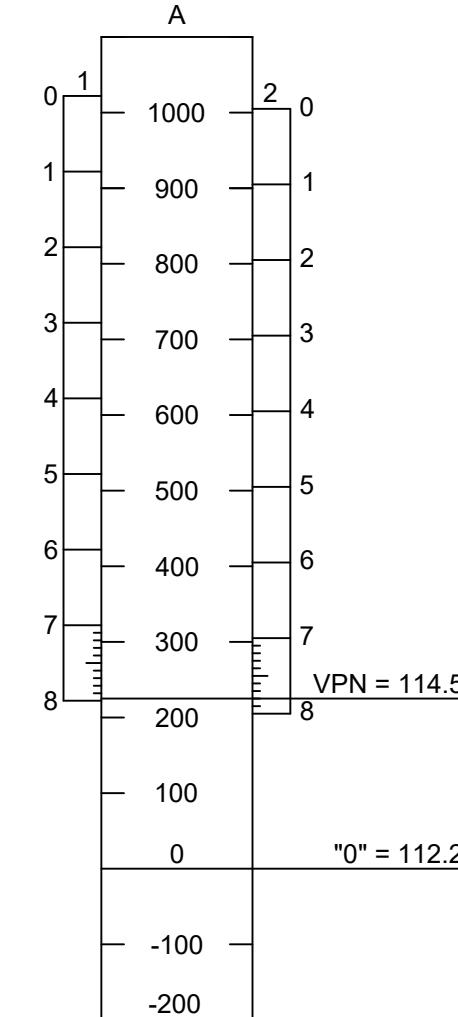
1. Svetla višina v sredini plovbene odprtine
2. Svetla višina na robu plovbenega območja



Plovbena odprtina
M 1:500/200
Navigation span
Scale 1:500/200

- VPN - visoki plovbeni nivo v profilu mosta
- vse kot so v m.n.m.
- vse dimenzijs so v metrih
- podatki o gabaritih stebrov in temeljev stebrov niso zanesljivi

- VPN - high navigation water level (bridge cross section)
- all levels are in m.a.s.l.
- all dimensions are in meters
- pier and pier foundation dimensions are not reliable information

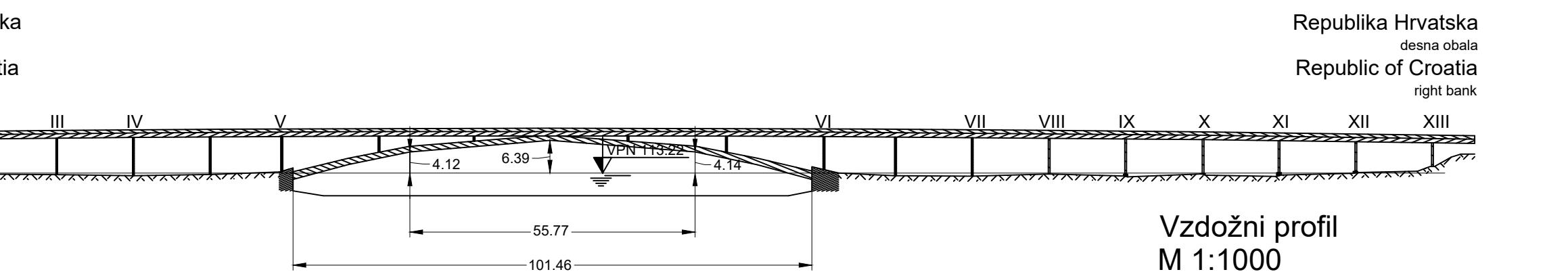


Cestni most "Sloboda", Sava, rkm 682.5

Merodajna vodomerna postaja Zagreb, rkm 687.7, kota "0"=112.26 m.n.m.

Road bridge "Sloboda", Sava River, rkm 682.5

Referentna vodometna postaja Zagreb, rkm 687.7, vodni nivo "0"=112.26 m.s.l.

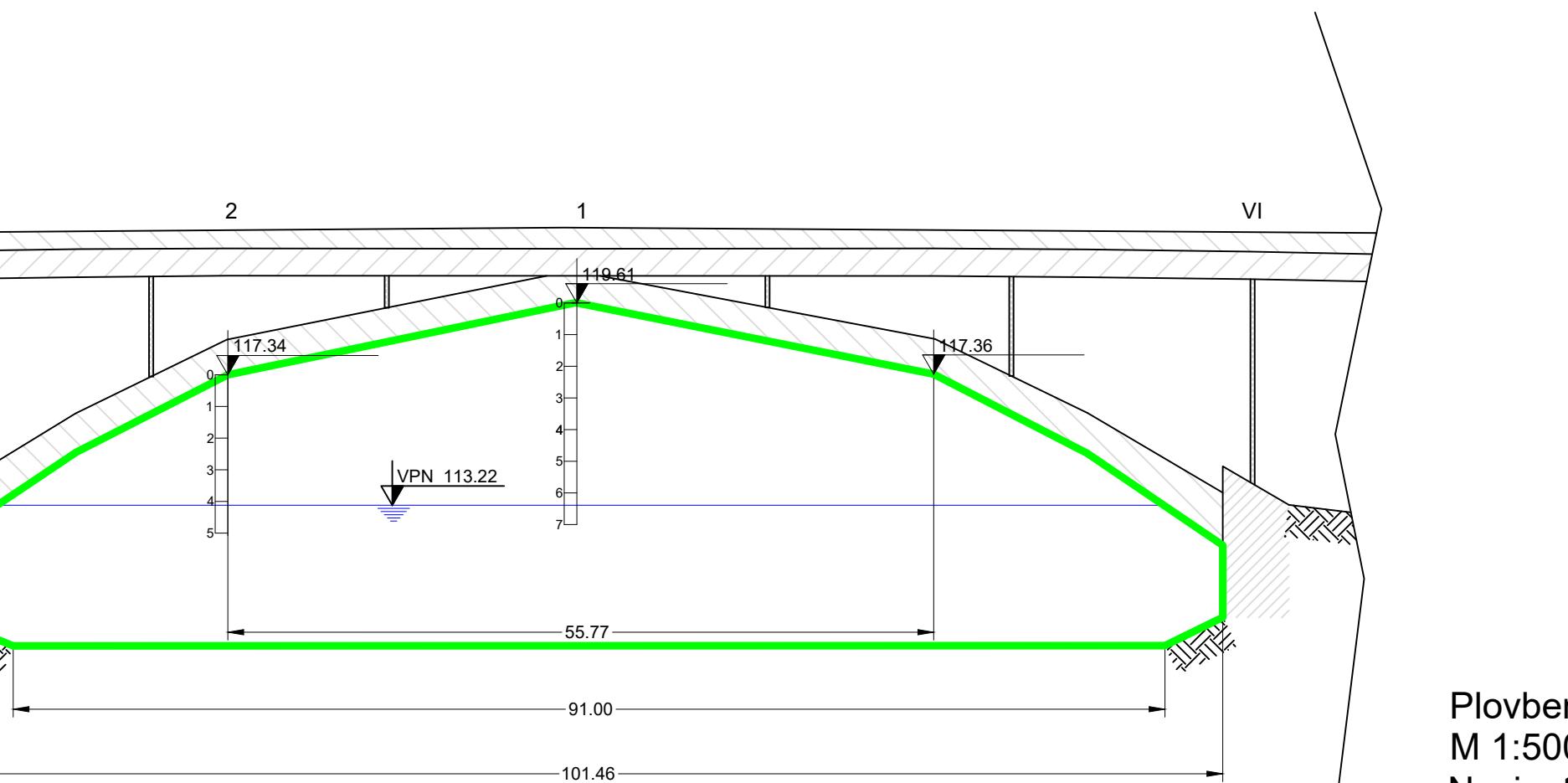


A. Nivo vode na vodomerni postaji

1. Svetla višina v sredini plovbene odprtine
2. Svetla višina na robu plovbenega območja

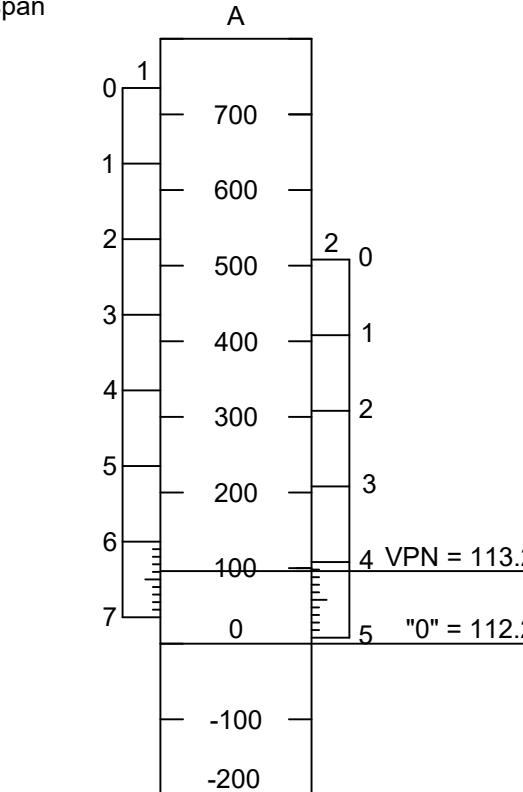


Situacija
M 1:5000
Layout
Scale 1:5000



A. Water level at water gauge

1. Vertical bridge clearance to middle of navigation bridge span
2. Vertical bridge clearance at the navigation bridge span



- VPN - visoki plovbeni nivo v profilu mosta
- vse kote so v m.n.m.
- vse dimenzije so v metrih
- podatki o gabaritih stebrov in temeljih stebrov mostov niso zanesljivi

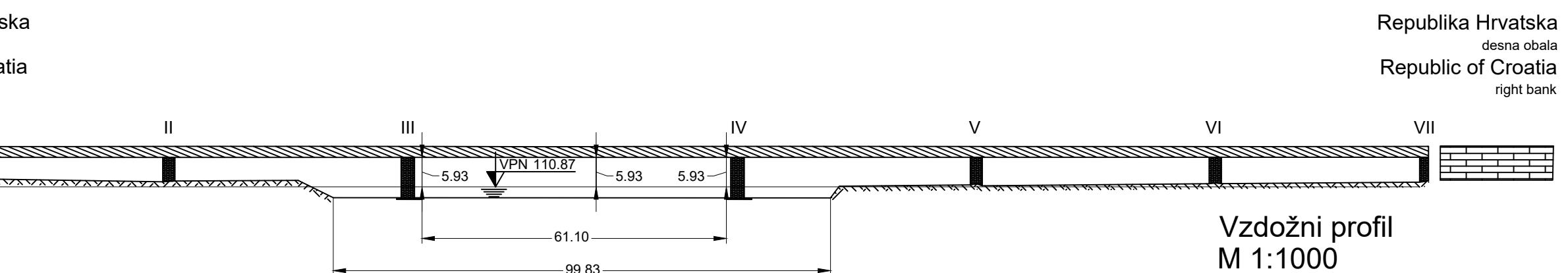
- VPN - high navigation water level (bridge cross section)
- all levels are in m.s.l.
- all dimensions are in meters
- pier and pier foundation dimensions are not reliable information

Cestni most "Mladost", Sava, rkm 680.7

Merodajna vodomerna postaja Zagreb, rkm 687.7, kota "0"=112.26 m.n.m.

Road bridge "Mladost", Sava River, rkm 680.7

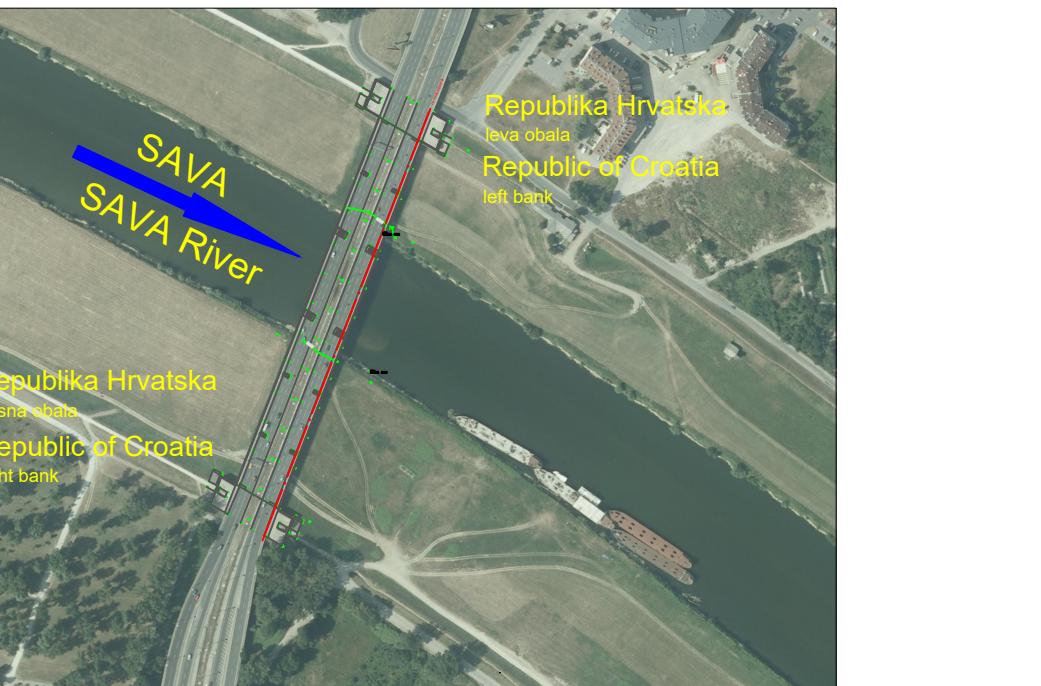
Referent water gauge Zagreb, rkm 687.7, water level "0"=112.26 m.a.s.l.



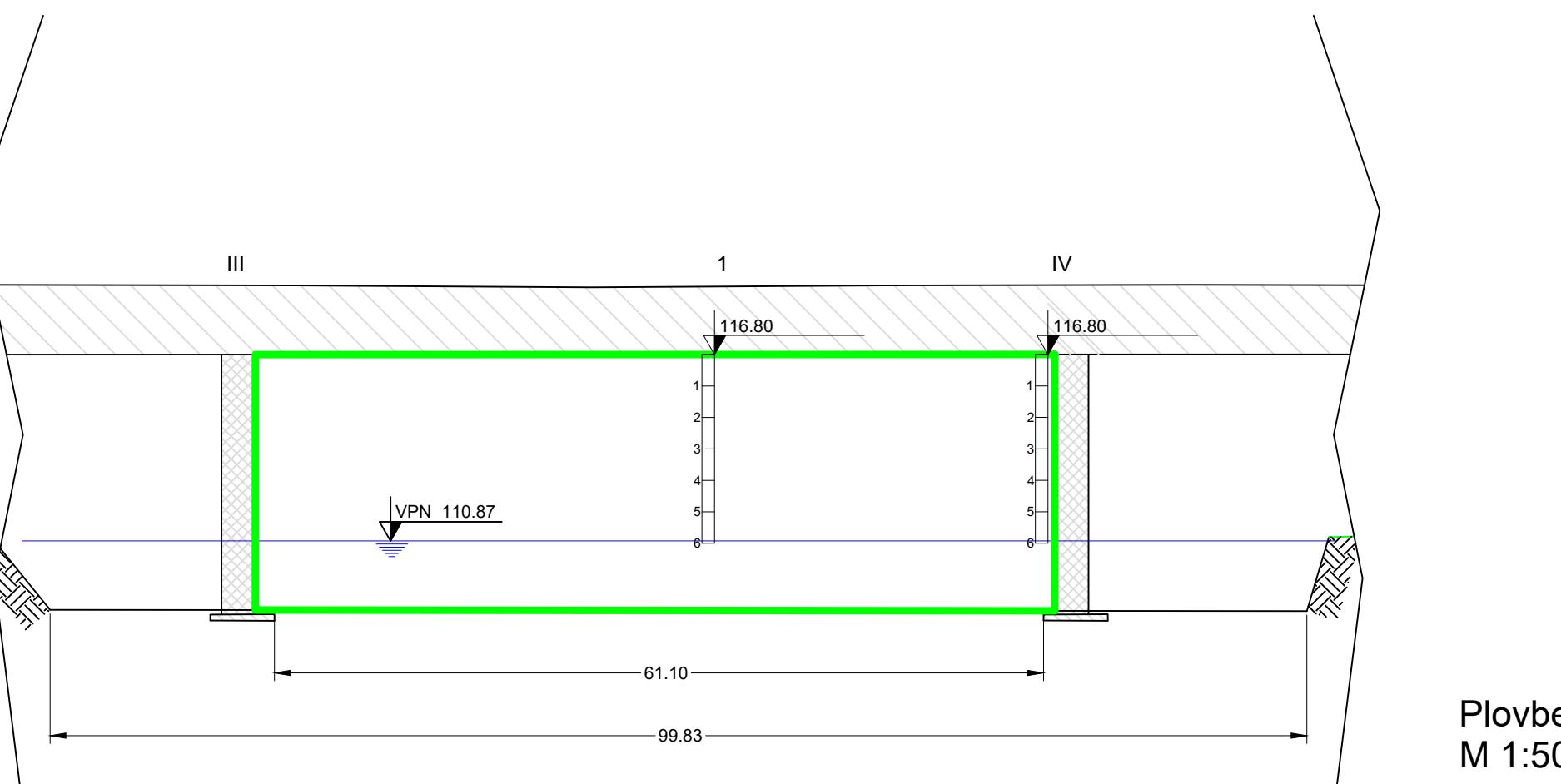
A. Nivo vode na vodomerni postaji

1. Svetla višina v sredini plovbene odprtine

2. Svetla višina na robu plovbenega območja



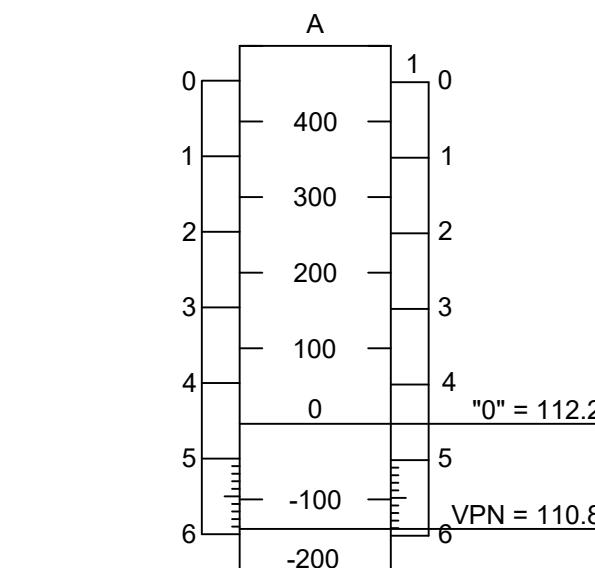
Situacija
M 1:5000
Layout
Scale 1:5000



A. Water level at water gauge

1. Vertical bridge clearance to middle of navigation bridge span

2. Vertical bridge clearance at the navigation bridge span



- VPN - visoki plovbeni nivo v profilu mosta

- vse kote so v m.n.m.

- vse dimenzije so v metrih

- podatki o gabaritih stebrov in temeljih stebrov mostov niso zanesljivi

- VPN - high navigation water level (bridge cross section)

- all levels are in m.a.s.l.

- all dimensions are in meters

- piers and piers foundation dimensions are not reliable information

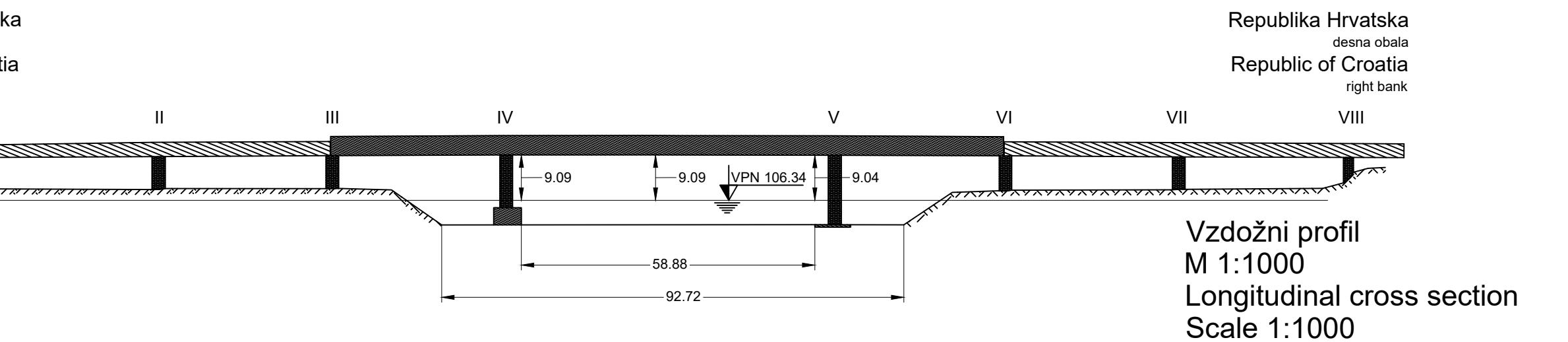


Železniški most "Mičevac", Sava, rkm 676.3

Merodajna vodomerna postaja Zagreb, rkm 687.7, kota "0"=112.26 m.n.m.

Railway bridge "Mičevac", Sava River, rkm 676.3

Referent water gauge Zagreb, rkm 687.7, water level "0"=112.26 m.a.s.l.



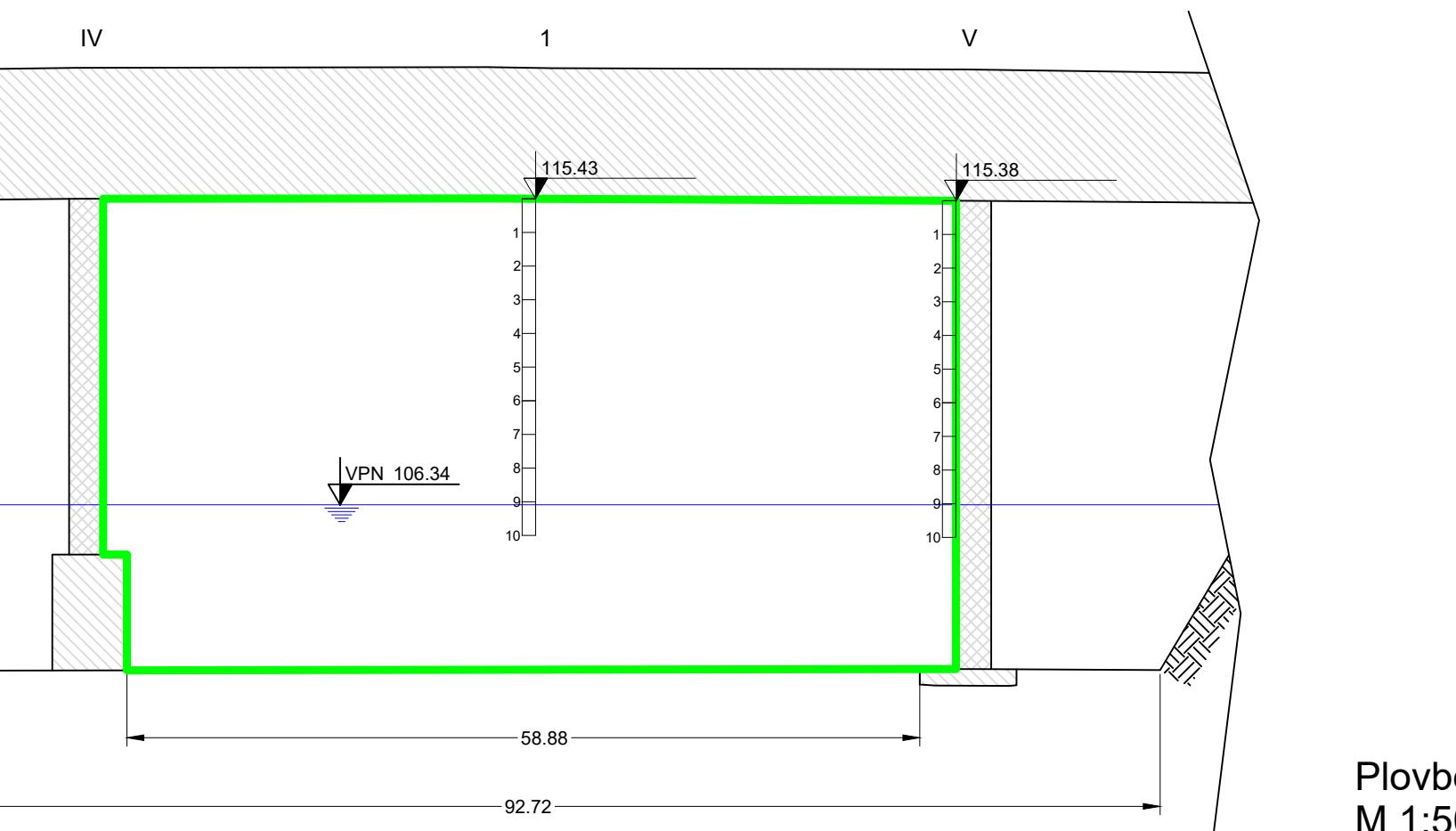
A. Nivo vode na vodomerni postaji

1. Svetla višina v sredini plovbene odprtine

2. Svetla višina na robu plovbenega območja



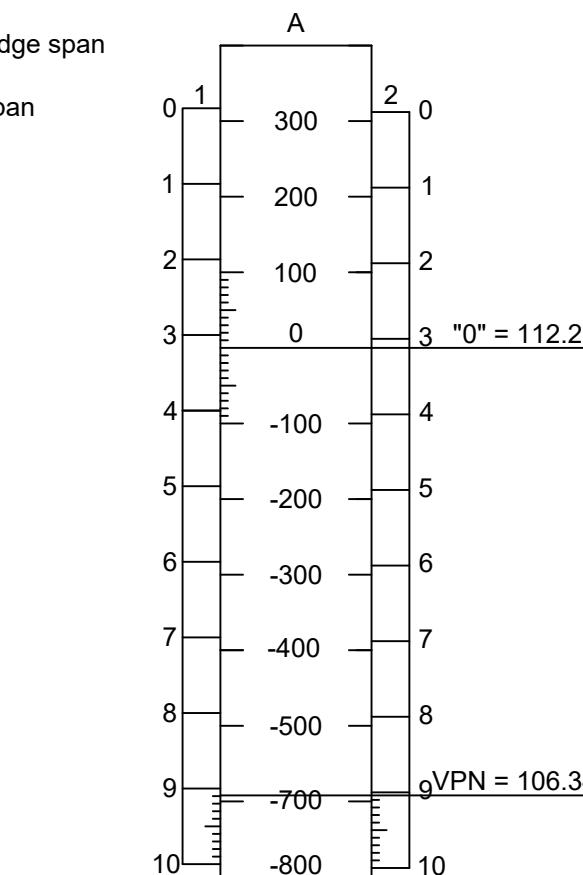
Situacija
M 1:5000
Layout
Scale 1:5000



A. Water level at water gauge

1. Vertical bridge clearance to middle of navigation bridge span

2. Vertical bridge clearance at the navigation bridge span



- VPN - visoki plovbeni nivo v profilu mosta
- vse kote so v m.n.m.
- vse dimenzijs so v metrih
- podatki o gabaritih stebrov in temeljih stebrov mostov niso zanesljivi

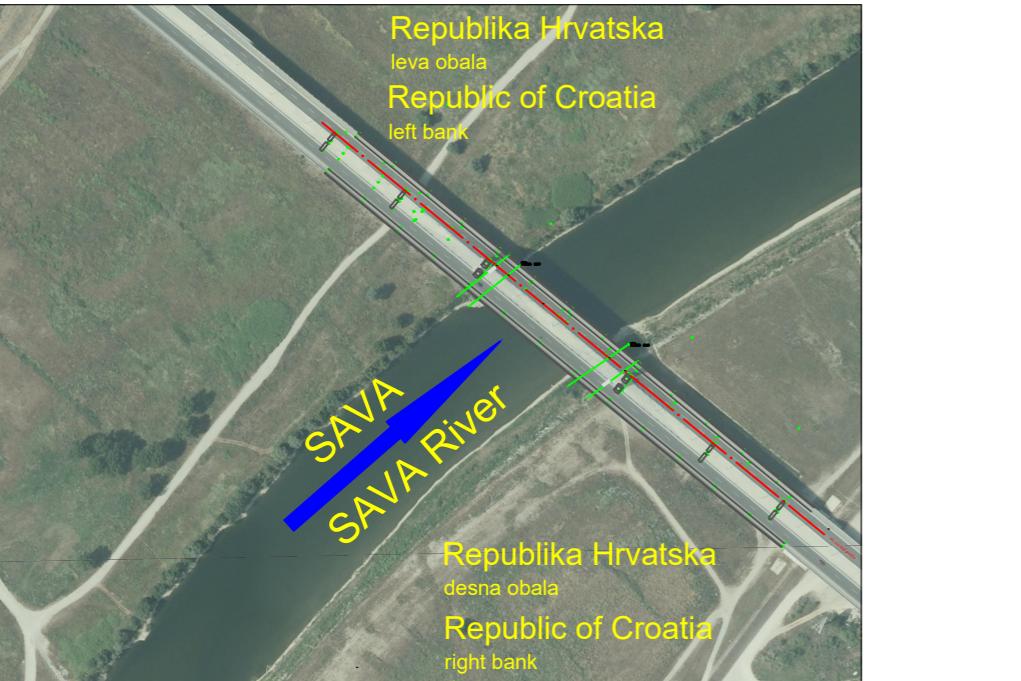
- VPN - high navigation water level (bridge cross section)
- all levels are in m.a.s.l.
- all dimensions are in meters
- pier and piers foundation dimensions are not reliable information

Cestni most "Domovinski", Sava, rkm 673.7

Merodajna vodomerna postaja Zagreb, rkm 687.7, kota "0"=112.26 m.n.m.

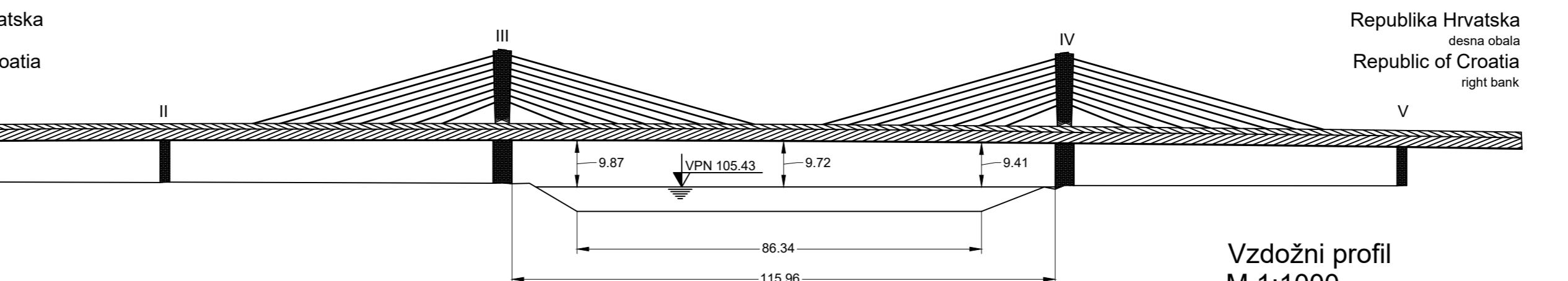
Road bridge "Domovinski", Sava River, rkm 673.7

Referentna voda Zagreb, rkm 687.7, voda nivo "0"=112.26 m.a.s.l.



Situacija
M 1:5000
Layout
Scale 1:5000

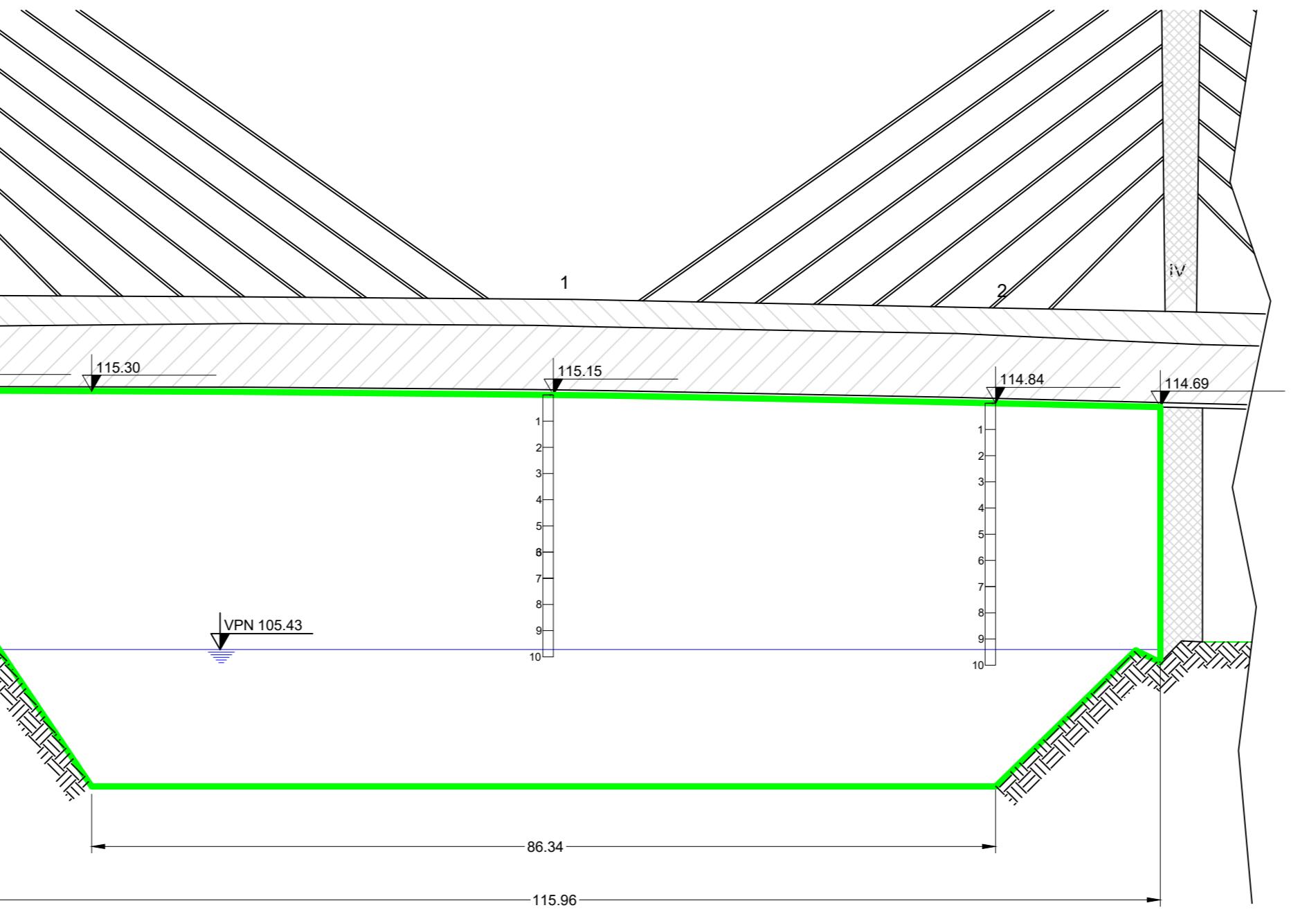
SAVA - visoki plovbeni nivo v profilu mosta
- vse kot so v m.n.m.
- vse dimenzije so v metrih
- podatki o gabaritih stebrov in temeljih stebrov niso zanesljivi



Vzdožni profil
M 1:1000
Longitudinal cross section
Scale 1:1000

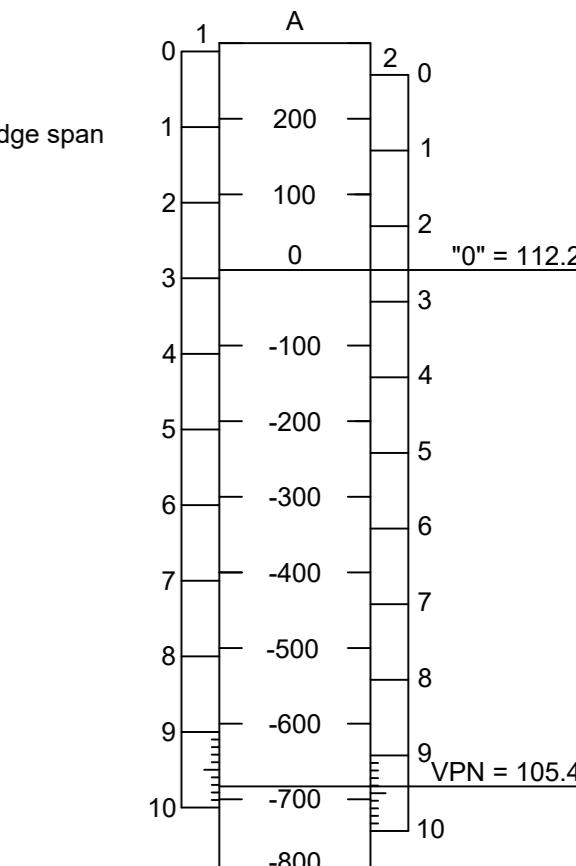
A. Nivo vode na vodomerni postaji

1. Svetla višina v sredini plovbene odprtine
2. Svetla višina na robu plovbenega območja



- VPN - visoki plovbeni nivo v profilu mosta
- vse kot so v m.n.m.
- vse dimenzije so v metrih
- podatki o gabaritih stebrov in temeljih stebrov niso zanesljivi

- VPN - visoki plovbeni nivo v profilu mosta
- all levels are in m.a.s.l.
- all dimensions are in meters
- pier and pier foundation dimensions are not reliable information



Cestni most "Ivanja reka", Sava, rkm 668.8

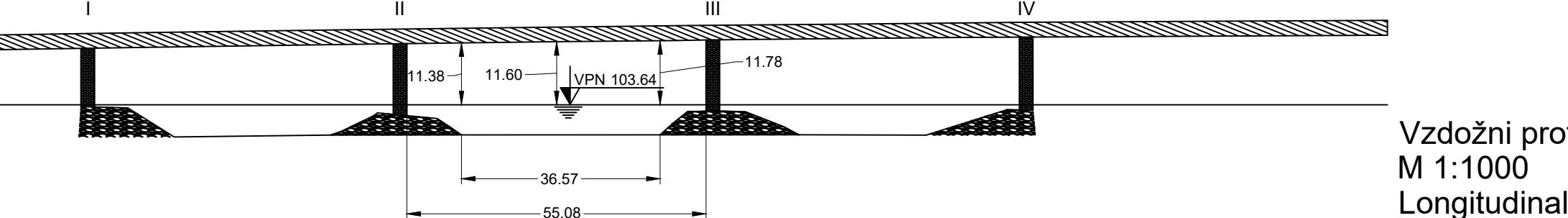
Merodajna vodomerna postaja Ruvica, rkm 657.3, kota "0"=95.61 m.n.m.

Road bridge "Ivanja reka", Sava River, rkm 668.8

Referentna vodna stopnja Ruvica, rkm 657.3, voda na stopnji "0"= 95.61 m.a.s.l.

Republika Hrvatska
leva obala
Republic of Croatia
left bank

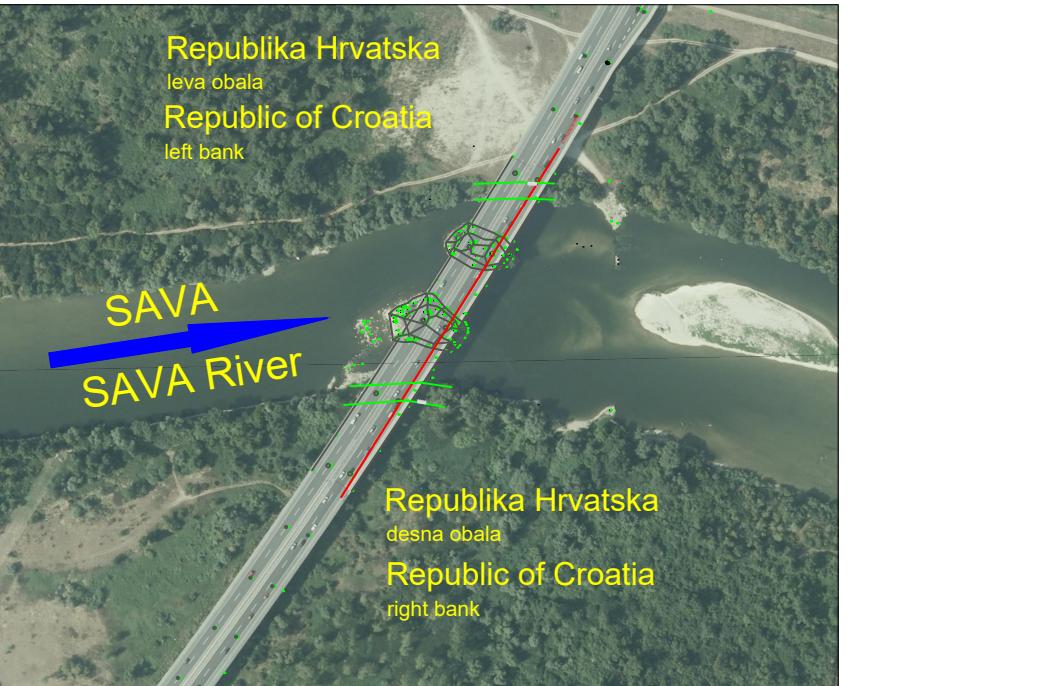
Republika Hrvatska
desna obala
Republic of Croatia
right bank



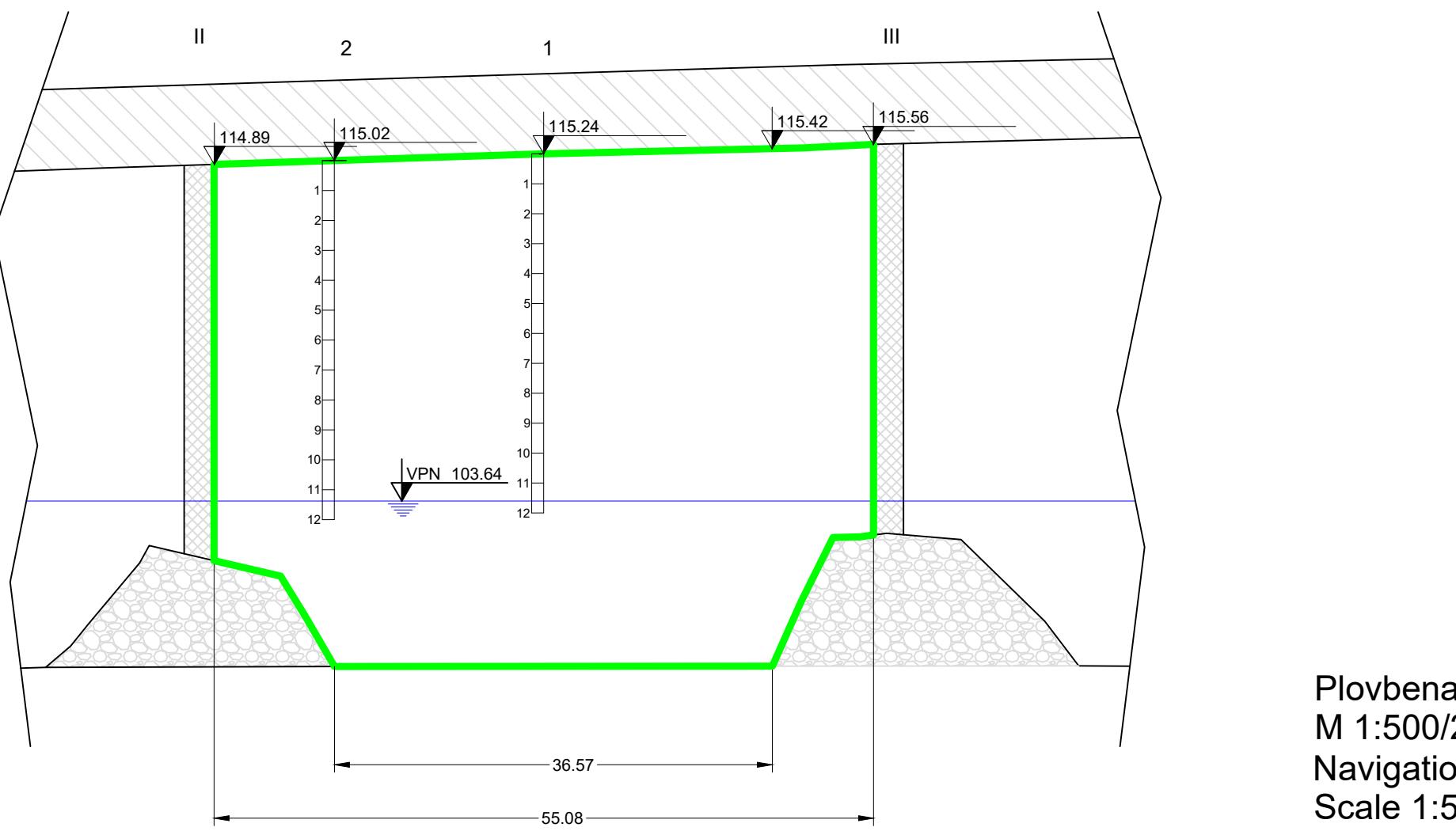
Vzdožni profil
M 1:1000
Longitudinal cross section
Scale 1:1000

A. Nivo vode na vodomerni postaji

1. Svetla višina v sredini plovbene odprtine
2. Svetla višina na robu plovbenega območja



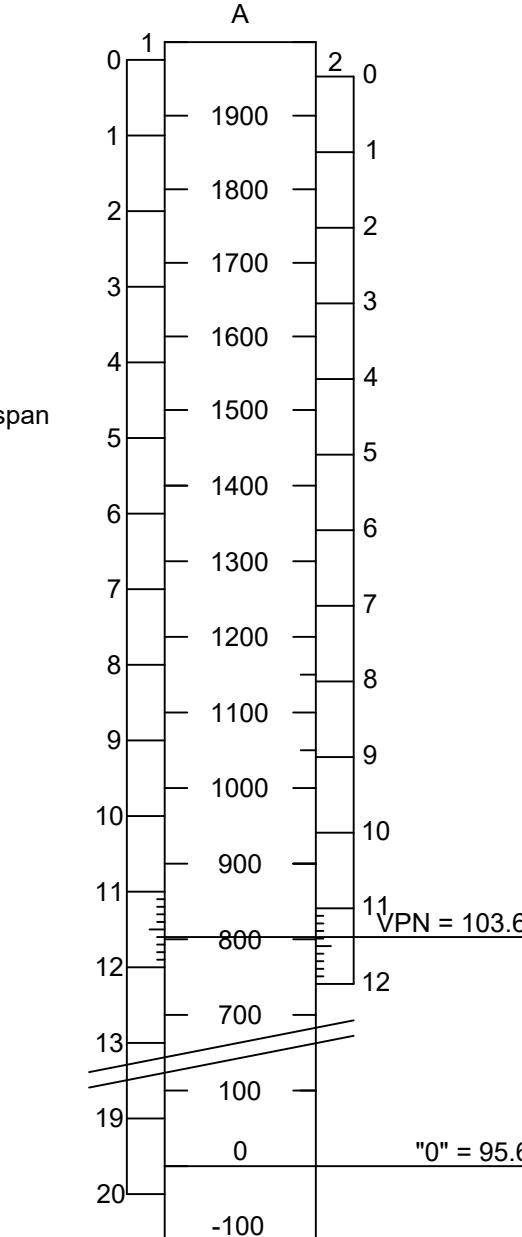
Situacija
M 1:5000
Layout
Scale 1:5000



Plovbena odprtina
M 1:500/200
Navigation span
Scale 1:500/200

A. Water level at water gauge

1. Vertical bridge clearance to middle of navigation bridge span
2. Vertical bridge clearance at the navigation bridge span



- VPN - visoki plovbeni nivo v profilu mosta
- vse kotje so v m.n.m.
- vse dimenzijs so v metrih
- podatki o gabaritih stebrov in temeljiv stebrov mostov niso zanesljivi

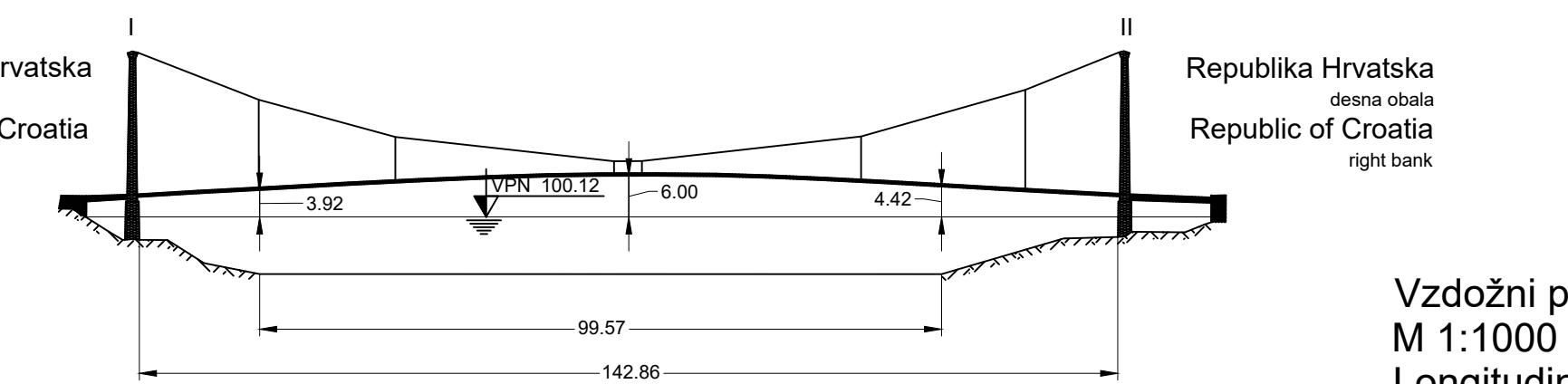
- VPN - high navigation water level (bridge cross section)
- all levels are in m.a.s.l.
- all dimensions are in meters
- pier and piers foundation dimensions are not reliable information

Cestni most "Martinska Ves", Sava, rkm 622.8

Merodajna vodomerna postaja Tišina Kaptolska, rkm 612.0, kota "0"=90.45 m.n.m.

Road bridge "Martinska Ves", Sava River, rkm 622.8

Referentna voda na vodomerni postaji Tišina Kaptolska, rkm 612.0, voda na vodomerni postaji "0" = 90.45 m.s.l.



Vzdožni profil
M 1:1000
Longitudinal cross section
Scale 1:1000

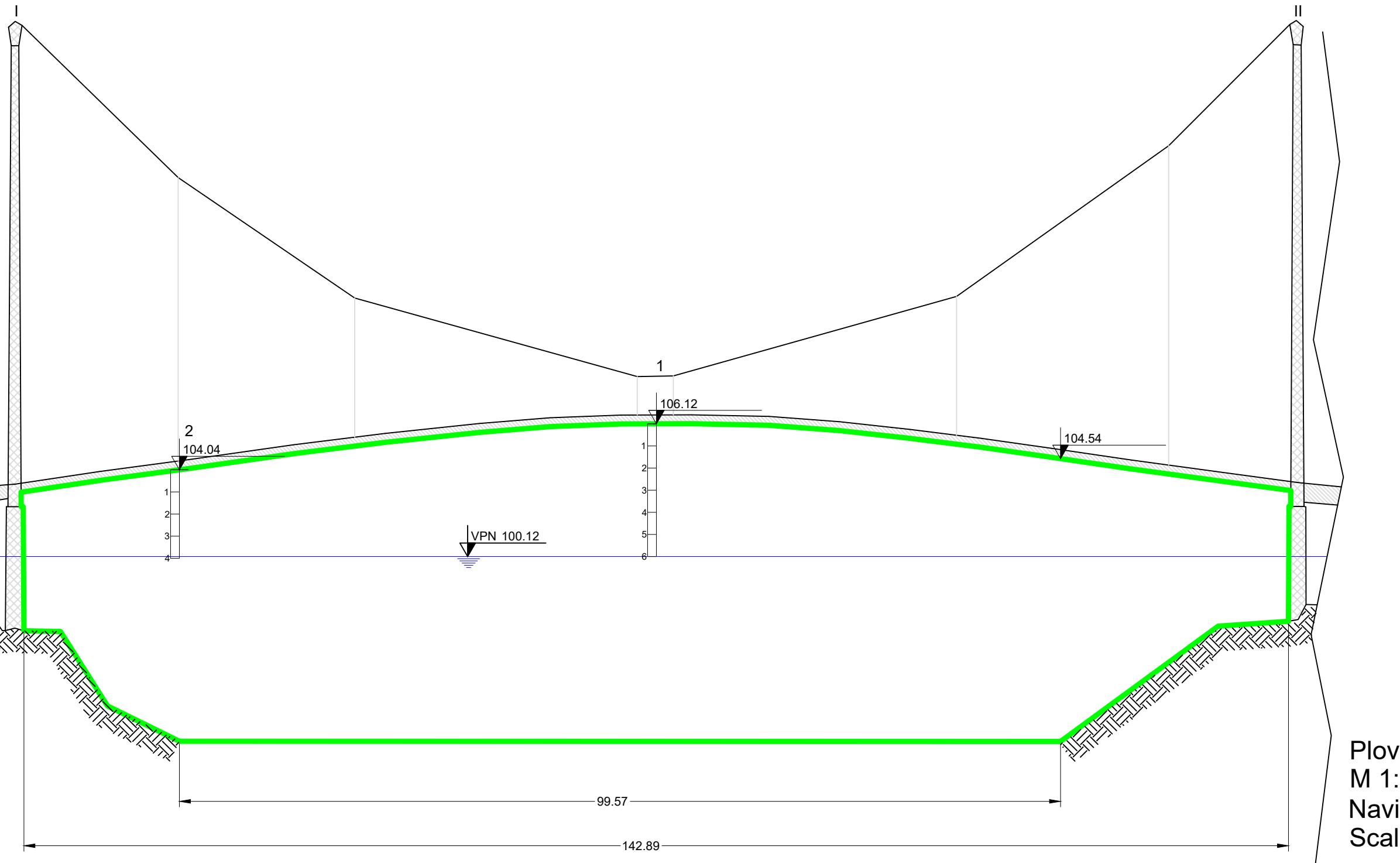
A. Nivo vode na vodomerni postaji

1. Svetla višina v sredini plovbene odprtine

2. Svetla višina na robu plovbenega območja



Situacija
M 1:5000
Layout
Scale 1:5000



Plovbena odprtina
M 1:500/200
Navigation span
Scale 1:500/200

- VPN - visoki plovbeni nivo v profilu mosta

- vse kote so v mm.m

- vse dimenzijs so v metrih

- podatki o gabaritih stebrov in temeljih stebrov mostov niso zanesljivi

- VPN - high navigation water level (bridge cross section)

- all levels are in m.s.l.

- all dimensions are in meters

- piers and piers foundation dimensions are not reliable information

