PEDESTRIAN BRIDGE

Byala Cherkva Street

architectural competition

Assignor: Sofia Municipality

TECHNICAL BRIEF

Contents

Introduction

Sofia Municipality invites architects, urban planners and engineers to participate in an open competition for designing a pedestrian bridge, which will form a new connection between South Park Part II and South Park Part III. The aim is to achieve continuity of these two primary green spaces in Sofia by linking them over Byala Cherkva Street. The popularity of both park areas implies a steady pedestrian flow between them, especially due to their proximity and their original urban connection.

The competition is held in the order described in the documentation and is in the conceptual design phase.

The Assignor of this competition is Sofia Municipality. All information about this competition is published on the website of the Assignor: https://nag.sofia.bg/ and the official website of the competition: http://peshehodenmost.com/.

The website http://peshehodenmost.com/ is updated periodically with news, answers to questions, clarifications of the conditions and other related information. Everyone who signs up to receive e-mail updates will be notified each time new information is published.

INFORMATION ABOUT THE COMPETITION AREA

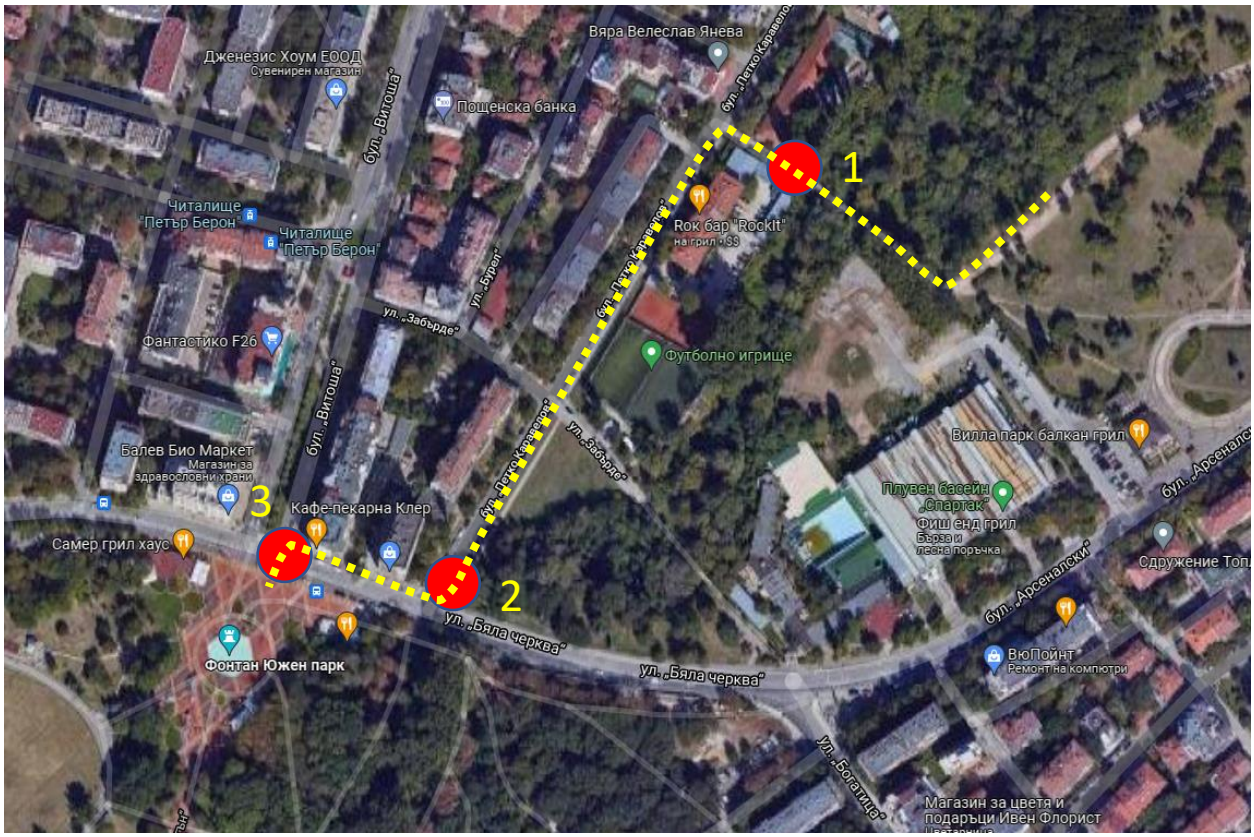
SCOPE OF THE PROJECT

The territory where the future pedestrian bridge will be constructed, its adjacent environment and alley network, as well as the necessary changes of the existing green spaces, is about 45 decares, located on both sides of Byala Cherkva Street. The impact area includes properties with different ownership, the bed of the Perlovska River, as well as part of the road and sidewalks of Petko Karavelov Street and Byala Cherkva Street.

Impact area

PEDESTRIAN NETWORK CONDITION

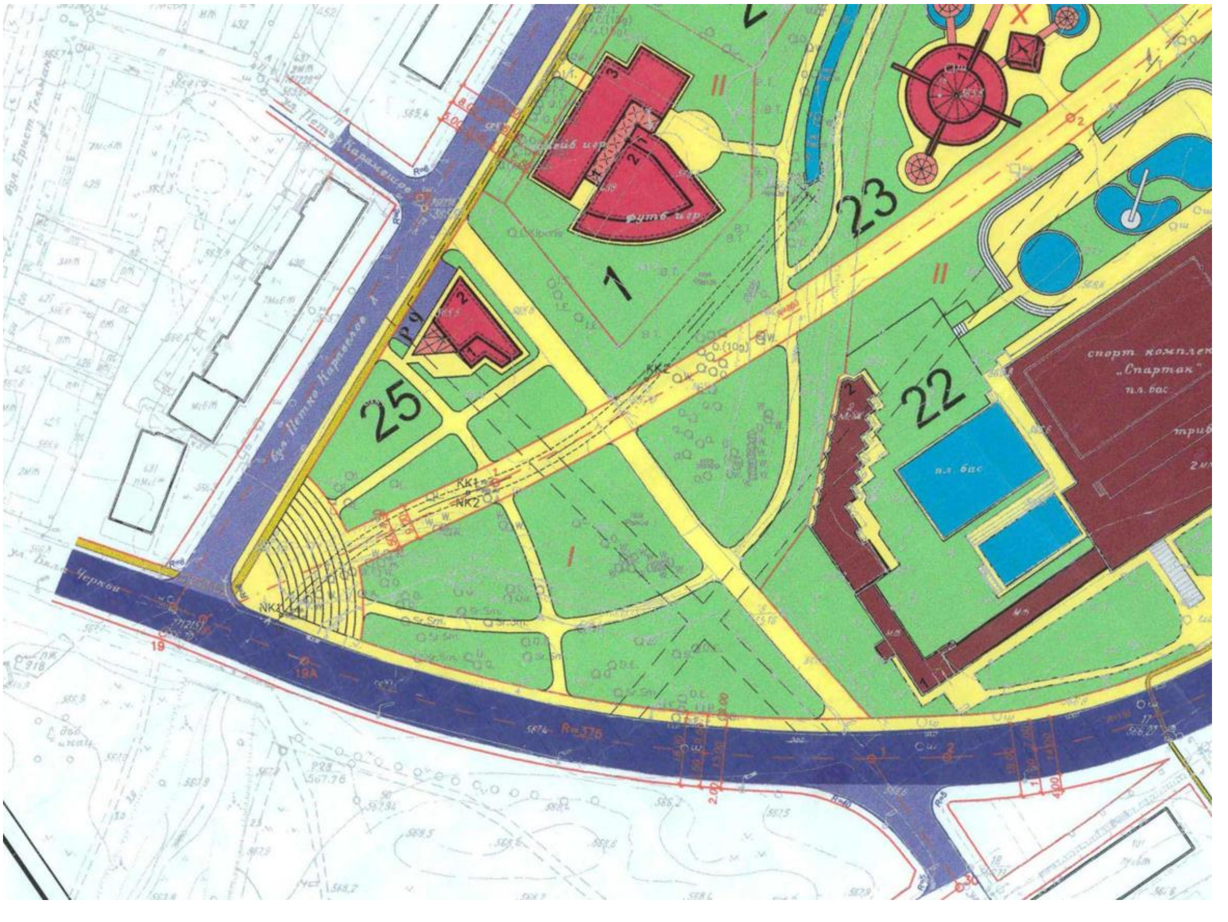
The current pedestrian connection between the two parks includes navigating narrow sidewalks and street-crossing. The obstacles that pedestrians have to overcome do not facilitate their uninterrupted flow. There is a lack of visual and spatial communication between the two parks.



Pedestrian obstacles: 1. Narrow bridge over the Perlovska River; 2. Crossing Petko Karavelov Street; 3. Intersection with traffic lights on Byala Cherkva Street

HISTORY OF URBAN PLANNING

The connectivity of the parks is envisioned in the Master Plan of Sofia, as well as in the Zoning Plan, which, however, has not been implemented. The Detailed Plan from 2002 envisages an underground crossing of the Perlovska River and further development of the alley network, as well as new construction in the area of South Park Part II.

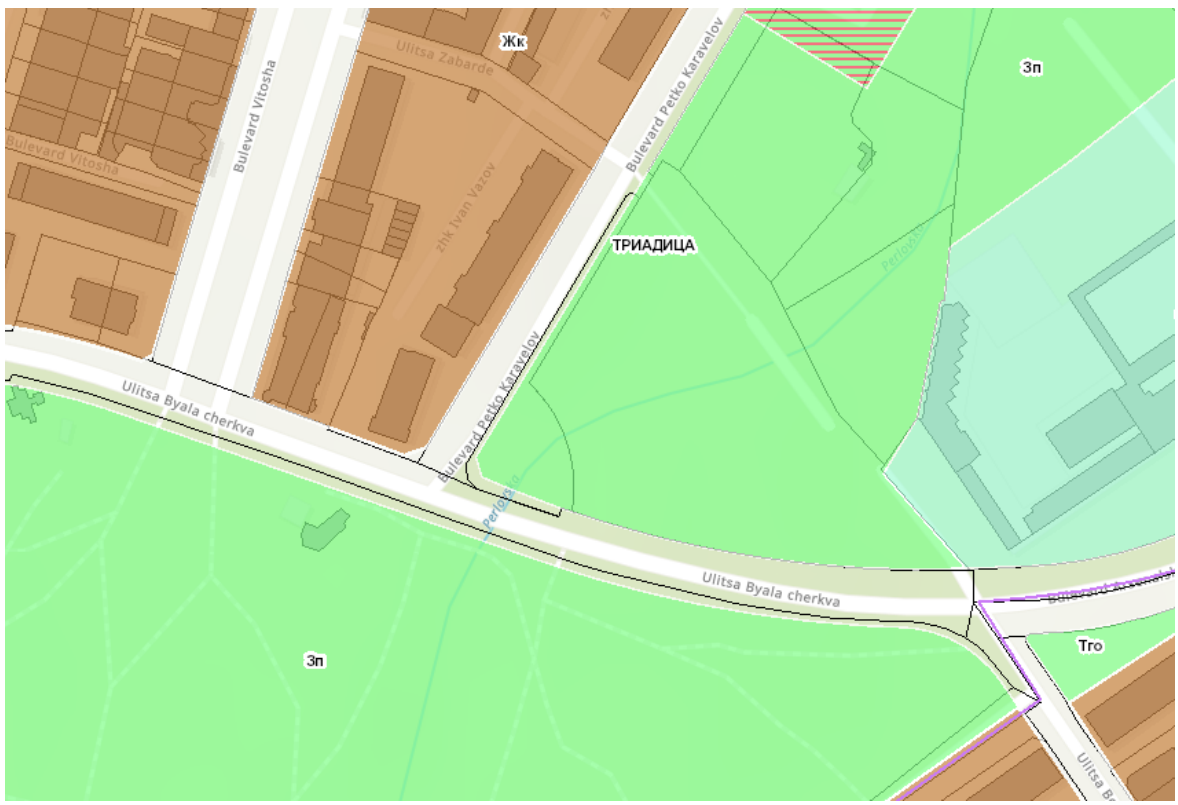


Detailed Plan from 2002

PROVISION OF THE GENERAL MASTER PLAN

The Master Plan of Sofia Municipality allows minimal construction in the adjacent properties, which fall within the Zone of City Parks and Gardens with the following description: "Parks for daily and weekly recreation with an area of over 5 ha; construction of buildings and facilities for activities related to recreation is allowed. Properties in this area can also be privately owned. The necessary areas for wide public use, which are public municipal property by law, are determined on the basis of the Detailed Plan. The minimum size for a regulated plot is 1 ha. At least two thirds of the green area of the park is covered with tall trees. "

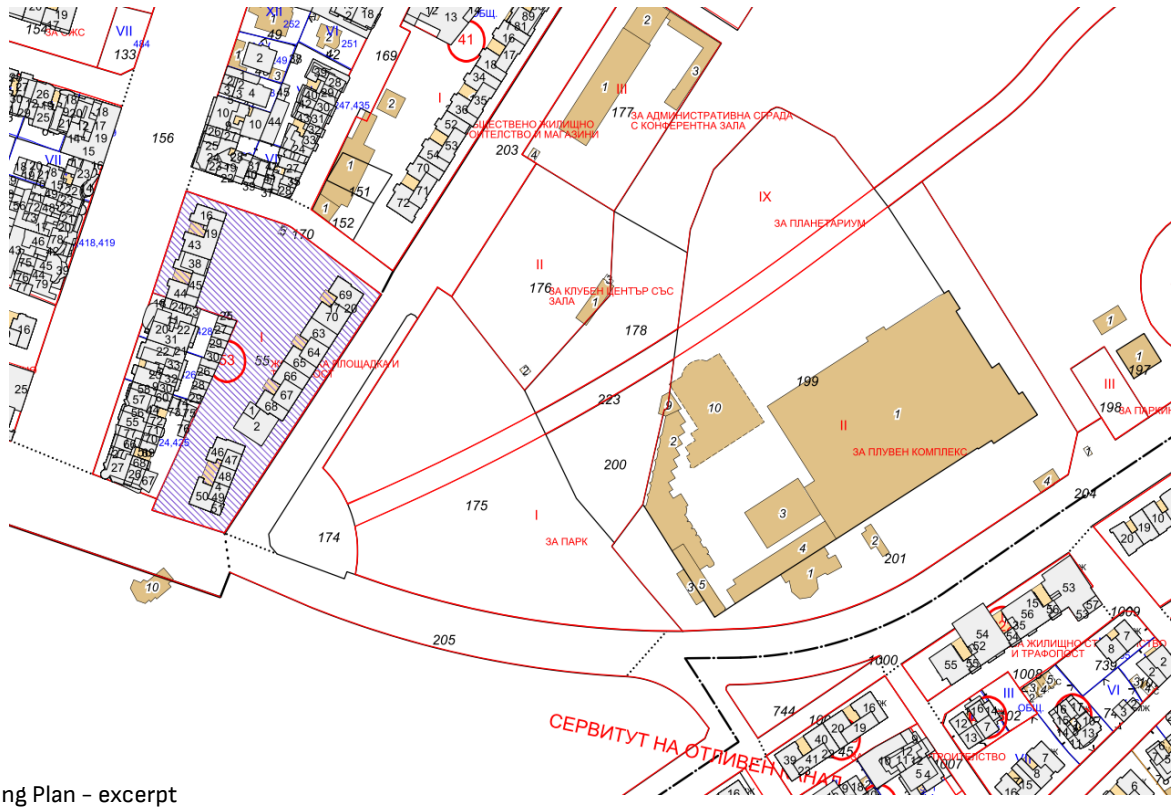
The permissible maximum intensity coefficient is 0.06, the building density – a maximum of 1%, and the minimum green area is 85%.



General Master Plan – excerpt

The current Zoning Plan of the territory also envisages a central alley terminating at the corner of Byala Cherkva Street and Petko Karavelov Street.

The zoning is not applied, incl. the riverbed.



Zoning Plan – excerpt

Cadastre – excerpt

PROPERTY OWNERSHIP INFORMATION WITHIN THE SCOPE OF THE COMPETITION

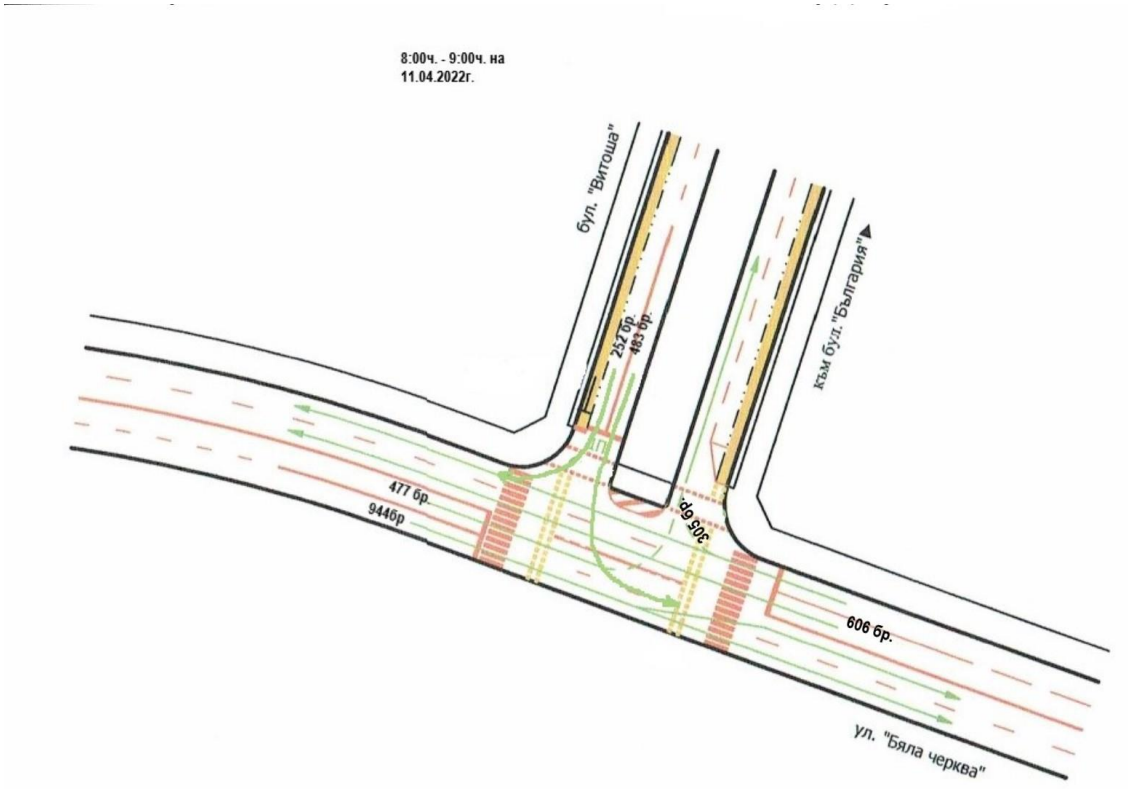
property	Cadastre register information
175	Land plot 68134.1004.175, Sofia City Province, Sofia Municipality, Sofia, Triaditsa district, postcode 1000, PETKO KARAVELOV Blvd., type of ownership: Private, type of territory: Urbanized, land use: For other type of green areas, area 9100 sq. M, old number 15, quarter 1, plot I
174	Land plot 68134.1004.174, Sofia City Province, Sofia Municipality, Sofia, Triaditsa district, postcode 1000, PETKO KARAVELOV Blvd., type of ownership: Municipal public, type of territory: Urbanized, land use: For other type of green areas, area 1240 sq. M, old number 15
178	Land plot 68134.1004.178, Sofia City Province, Sofia Municipality, Sofia, Triaditsa district, postcode 1000, PETKO KARAVELOV Blvd., type of ownership: Private, type of territory: Urbanized, land use: For other type of green areas, area 1921 sq. M, old number 532, quarter 1, plot I
223	Land plot 68134.1004.223, Sofia City Province, Sofia Municipality, Sofia, Triaditsa district, postcode 1000, type of ownership: Municipal public, type of territory: Urbanized, land use: For a secondary street, area 547 sq. M
200	Land plot 68134.1004.200, Sofia City Province, Sofia Municipality, Sofia, Triaditsa district, postcode 1000, ARSENALSKI Blvd., type of ownership: Municipal public, type of territory: Urbanized, land use: For other type of green areas, area 1732 sq. M, old number 540, quarter 3, plot I
199	Land plot 68134.1004.199, Sofia City Province, Sofia Municipality, Sofia, Triaditsa district, postcode 1000, 4 ARSENALSKI Blvd., type of ownership: State public, type of territory: Urbanized, land use: For other public object, complex, area 16606 sq. M, old number 547, quarter 3, plot II
152	Land plot 68134.1004.152, Sofia City Province, Sofia Municipality, Sofia, Triaditsa district, postcode 1000, Petko Yu. Todorov str., type of ownership: Municipal public, type of territory: Urbanized, land use: Public park, garden, area 615394 sq. M, old number 38140200, quarter 187a, plot I
203	Land plot 68134.1004.203, Sofia City Province, Sofia Municipality, Sofia, Triaditsa district, postcode 1000, PETKO KARAVELOV Blvd., type of ownership: Municipal public, type of territory: Urbanized, land use: For a primary street, area 16798 sq. M

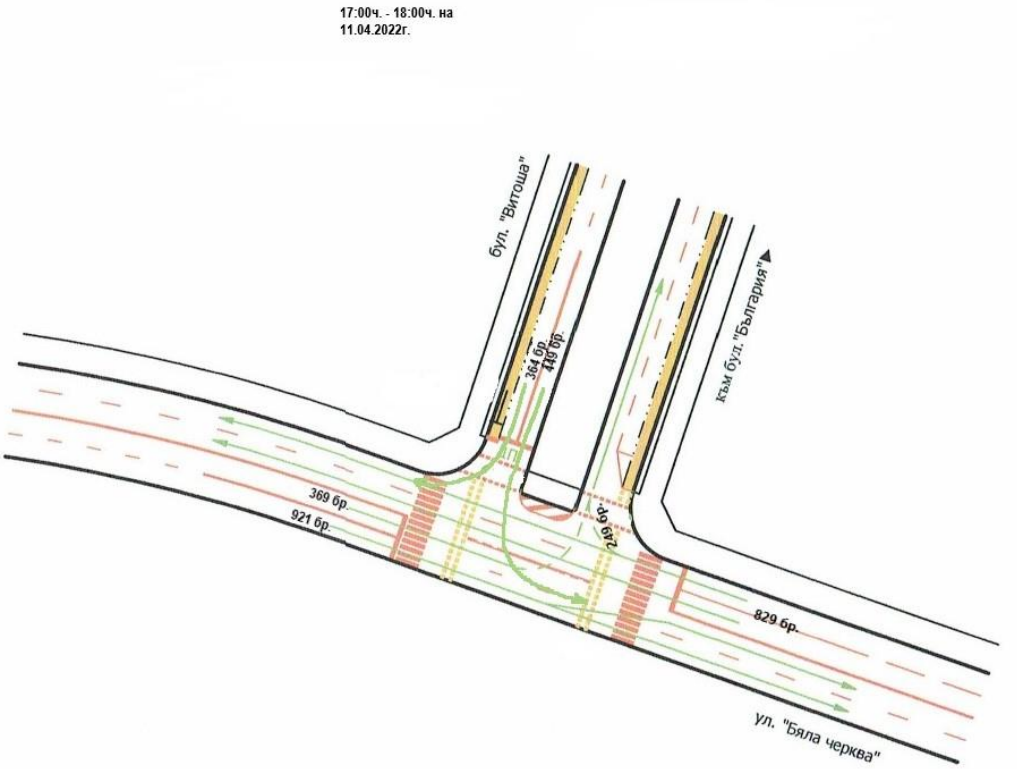
SCHEMATIC SITUATION

1. The bed of the Perlovska River
2. Existing pedestrian bridge
3. Pedestrian path and traffic light
4. Public transport stop
5. Main pedestrian alley South Park II
6. Backyard of the pool "Spartak"

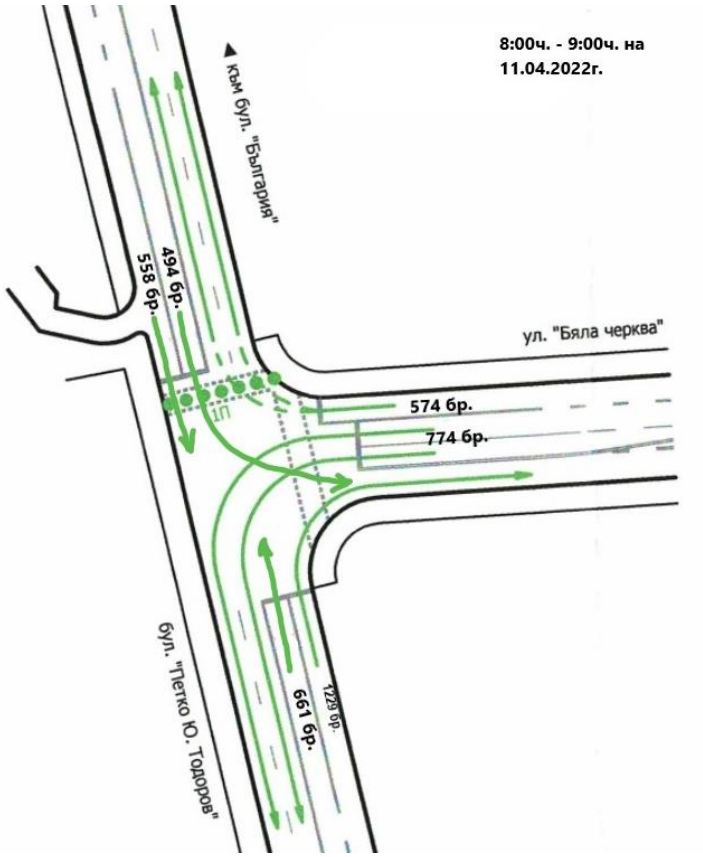
TRAFFIC STATISTICS

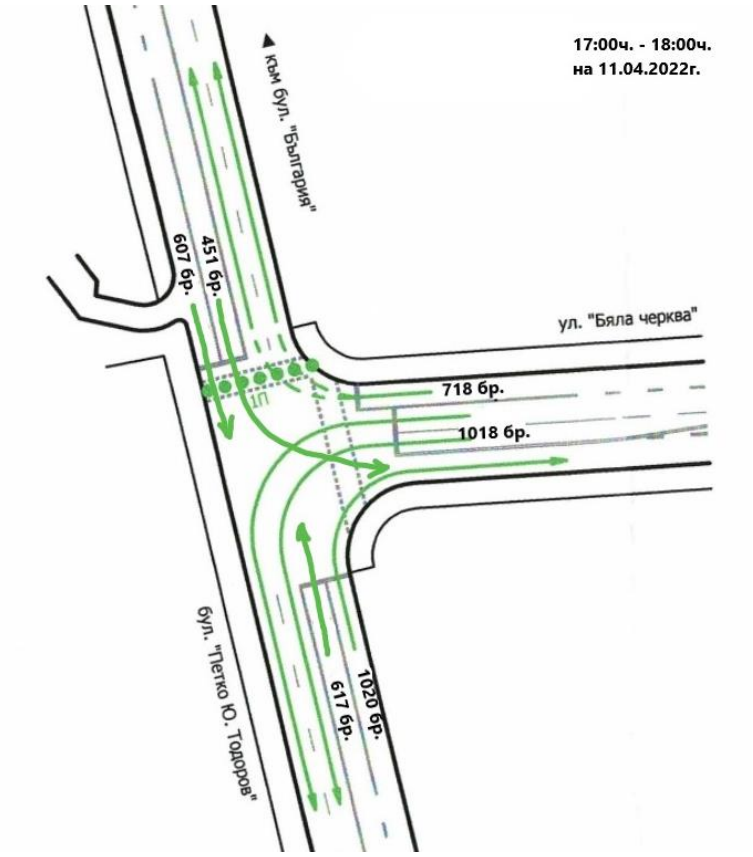
Crossroads of Byala Cherkva Street and Vitosha Blvd.





Crossroads of Byala Cherkva Street
and Petko Todorov Street

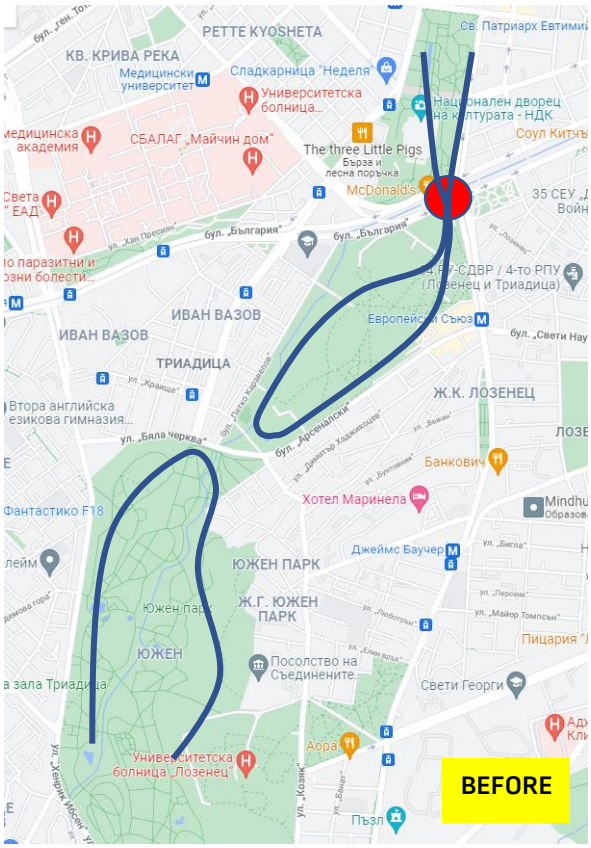


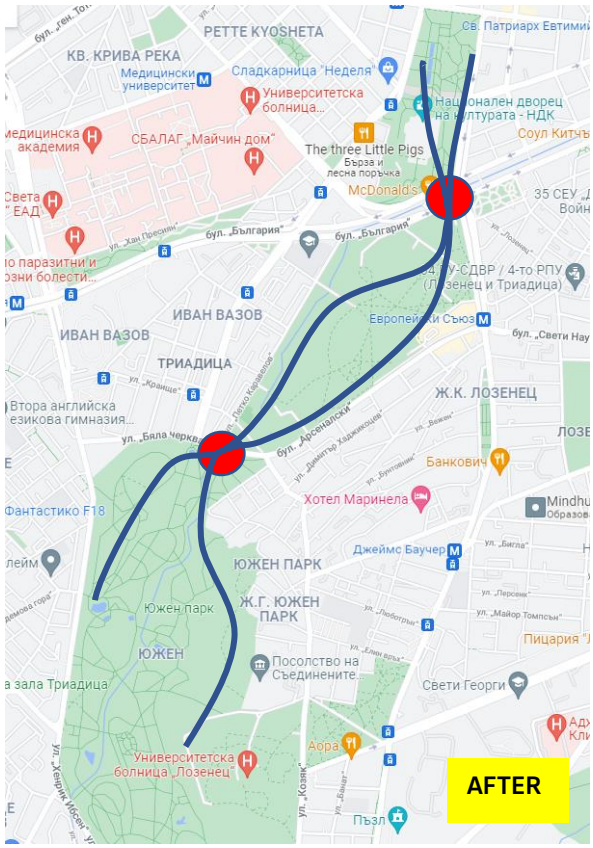


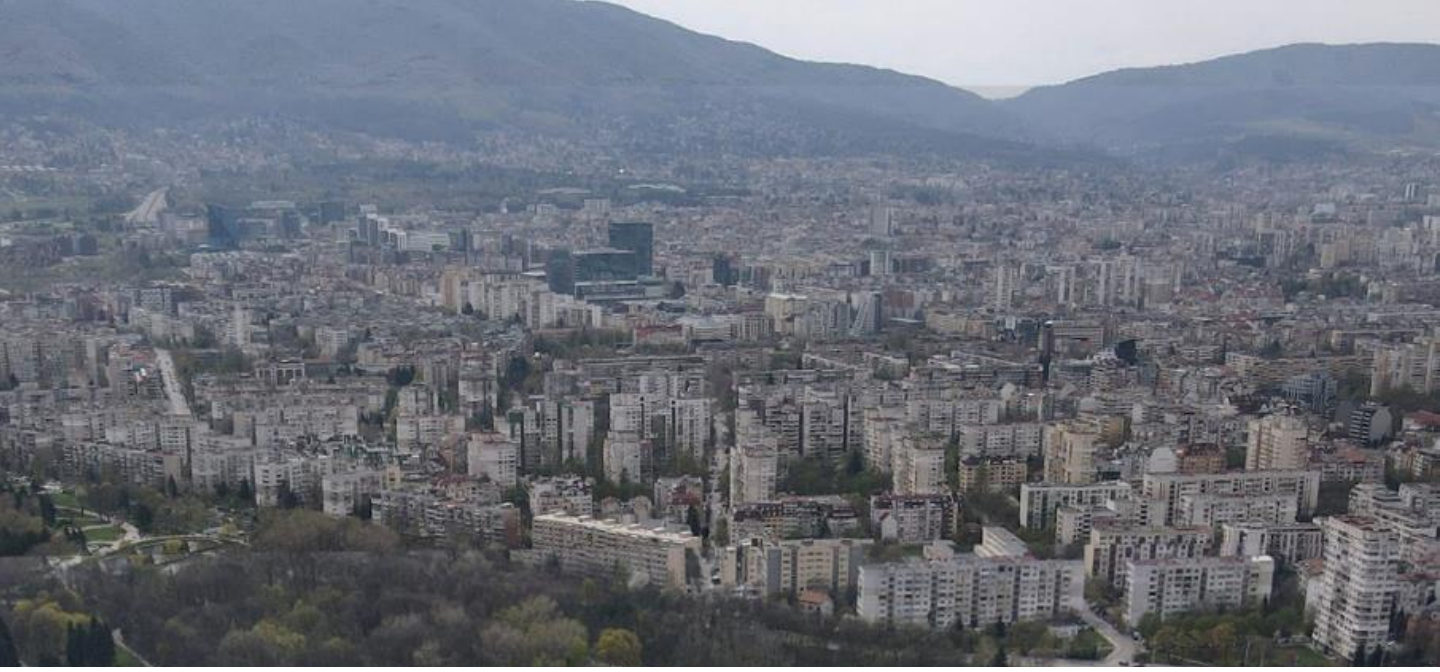
COMPETITION AIMS

With the implementation of a pedestrian connection linking the two parts of the park in a natural, unobstructed way at a different level to vehicle traffic, a substantial increase in pedestrian flows is expected, which will improve the access of the population to green areas.

The construction of the new bridge and the development of the adjacent territory will complete the merging of the three zones: South Park I (the area in front of the National Palace of Culture), South Park II and South Park III into one continuous and large-scale park space.







Sofia Municipality is looking for a proposal that:

- Allows unimpeded and natural movement of large pedestrian flows between the two parts of the park passing over Byala Cherkva Street.
- Provides an elegant and modern structural and architectural design to a bridge over Byala Cherkva Street.
- Ensures a harmonious and environmentally friendly connection between the bridge structure and the park spaces of South Park II and South Park III.
- Provides an economically feasible solution.
- Provides a technically feasible solution.

The selection of the most appropriate proposal will be the basis for conducting further procedures by Sofia Municipality, in order to prepare a new Detailed Plan of the area.

COMPETITION PROGRAM

DESIGN GUIDELINES

In their respective proposals, the teams shall provide a specific conceptual solution, in accordance with the following outline of the scope and content of the competition:

Urban planning guidelines

The teams must propose a specific route for the pedestrian connection between the two parks and the related changes in the urban planning framework of the territory: regulation plan, road traffic, pedestrian traffic, etc.
The teams must justify any proposal concerning changes in the current urban planning and park development framework, incl. change of sidewalks, streets, alley network, property boundaries, etc. The capacity and the dimensions of the pedestrian connection is to be determined by the designers, subject to justification. The height of the structure compared to the level of Byala Cherkva Street must take into account the passage of trolleybus public transport, as well as other permissible heavy goods transport.

Architecture and landscape guidelines

Teams must provide a specific geometric proposal for the new pedestrian connection as well as the adjacent pedestrian network. The proposal must be justified in terms of capacity, ergonomics, regulations.
The project proposal must be harmoniously linked with the surrounding environment of the two parks. The bridge itself, as well as the contact areas, should be developed as a public urban space with distinctive furnishings.

Accessibility guidelines

The design proposal must provide an unobstructed and accessible architectural environment for the whole population, taking into account the specific needs of people with reduced mobility, incl. of people with disabilities.

Bicycle and alternative movement guidelines

To date, no separate cycling network leading to the territory has been implemented. However, the bridge should be considered as a future part of the city's cycling infrastructure. Therefore, the proposal should take into account the possible delineation of a bicycle lane, also suitable for alternative means of transportation (scooters, segway, skates, etc.)

Vertical communication guidelines

At the discretion of the design teams, a solution may be proposed for access to the upper level of the pedestrian bridge through technical means of vertical communication. In case these facilities constitute the main means of transportation, all justifications should be made (capacity, feasibility study, accessible environment, etc.)

Structural guidelines

The teams must present a conceptual structural design, in order to substantiate the technical feasibility of the proposal. The structural part of the conceptual design determines:

- the construction system, the structural scheme and the conceptual structural and technological solutions;
- the approximate dimensions and location of the load-bearing structural elements, determined in accordance with the architectural solutions.

The structure of the bridge must be designed, taking into account earthquake resistance, according to the European Structural Design System, which includes the parts of БДС EN from 1990 to 1999, referred to as "Eurocodes" for short.

Cost estimation guidelines

The teams must estimate the required financial investment on an aggregated basis according to current market prices. The assessment should be made in the attached form in *Appendix B*

LIMITATIONS

Green systems

A geodetic photograph of tall tree vegetation was produced. The teams should describe the number and type of trees that need to be removed.
The Assignor is looking for a solution with a delicate intervention approach to the ecosystem of the park and minimal removal of tall trees.

Underground infrastructure

A sample of the underground infrastructure is attached. The teams should take into account the location of power lines, heating pipes, water pipes, sewerage, etc., and in case of need for relocation – to estimate the associated costs.

Ownership

Despite the presence of private properties within the territorial scope of the competition, no specific ownership considerations are required. The selection of the most appropriate proposal will provide Sofia Municipality with a basis for conducting procedures, in order to amend the current Detailed Plan of the properties within the impact area and to organise the necessary expropriation procedures.

Transport

In the event of a justified change in the transport scheme within the impact area, an appropriate proposal should be provided at the discretion of the team .

Estimated cost

No set construction budget has been allocated by the Assignor. The estimated cost of the investment is part of the evaluation criteria.

EVALUATION CRITERIA

Criterion 1 (K1): Urban planning functionality

The urban planning solution and the related transformations of the regulation plan, automobile traffic and transport, pedestrian and bicycle traffic are assessed comprehensively. The justification for the selection of a specific location for the bridge and the connecting alleys is assessed.
Maximum possible mark: 30 points.

Criterion 2 (K2): Environment design

The originality, functionality and sustainability of the spaces and elements of the urban and park environment are evaluated. The convenience and comfort for movement and recreation is taken into account. The inclusion of the proposal in the ecosystem of the park is assessed.
Maximum possible mark: 30 points.

Criterion 3 (K3): Bridge design

The originality, functionality and structural solution of the bridge are evaluated. The volumetric-spatial presence and architectural vision are evaluated. The structural justification and optimality of the chosen structural scheme are evaluated.
Maximum possible mark: 30 points.

Criterion 4 (Q4): Economic feasibility

The economic feasibility of the proposal is assessed. The completeness of the cost-and-quantity material estimations, as well as the actual forecast calculations, are assessed. The estimated cost participates in the valuation formula described in the valuation methodology.
Maximum possible mark: 10 points.


30НА

PREPARATION OF THE TENDER DOCUMENTATION

The competition entries must consist of up to four boards in A0 format and explanatory notes in A4 format. The orientation of the boards should be horizontal (Landscape) and the note – vertical (Portrait).
The competition materials are submitted on paper on a hard surface (foam cardboard or similar) and as files recorded on a CD attached to them.
The names of the authors or teams, their photos, initials or logos should not be present in the materials described here. Participants are not allowed to put an identification number on the materials.

Requirement for the boards

Up to four boards in horizontal format A0 are required. If necessary, participants can include explanatory texts on the boards clarifying their idea. There is no requirement for the type and size of fonts.

Example content of the boards:

BOARD 1
Situational proposal for the whole territory in M1:500.

BOARD 2
Plan, sections and elevations of the bridge in M1:200.

BOARD 3
Structural proposal for the bridge, the appropriate representation is to be determined by the participating teams.

BOARD 4
Other materials clarifying the general concept of the project: 3D visualizations and other illustrative materials.

Requirement for the explanatory notes

The text must be printed on one side. Font Ariel, 12pt. The text should briefly clarify the main concept of the project and should not exceed 3600 characters (letters / numbers, including spaces and punctuation). The text should not use formatting (bold, italic, color, columns, inserted images, tables).

Requirement for the cost-and-quantity estimations

Participants should fill in the form attached to the documentation.

Requirement for electronic files

File names must be: 1.pdf, 2.pdf, 3.pdf, 4.pdf, zapiska.pdf, smetka.pdf.

*zapiska = explanatory note
**smetka = cost-and-quantity estimation

For the purposes of the competition website and media outreach the addition of a representational image is required. Image requirement: JPEG file with dimensions 1900x1080px (72dpi, RGB colour mode, horizontal orientation).

Participants must delete the metadata in the electronic files!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MONTH

SOURCE DOCUMENTS AND APPENDICES

Appendix A:

Geodetic survey

Underground infrastructure

Excerpt from Zoning Plan

Excerpt from Development Plan

Excerpt from Cadastre register

Detailed Plan from 2002

Photoalbum

Appendix B:

Table for presentation of cost-and-quantity estimations by aggregated indicators