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CONTEMPORARY CHALLENGES IN FRONT OF PARK DEVELOPMENT IN SOFIA

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ABSTRACT

The construction boom and the continuous migration to the city, as well as the ambition of the city administration to prevent the expansion of the physical boundaries of the city at the expense of densification and unregulated parking in the green areas, leads to a complete compromise of the meaning of the urban green system and quite logically ranks the city at the top of the negative rankings in recent years.

Today, more than ever, Sofia needs a new, very well-thought-out regulatory framework with a long horizon and clear and pragmatic goals, in the context of modern challenges.

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Disquisition. According to the Constitution of the Republic of Bulgaria, "Citizens have the right to a healthy and favorable environment" (Article 55 of the Constitution of the Republic of Bulgaria)! Green areas are one of the main elements of the urban environment and provide [8] "favorable conditions for living, working and recreation of the population" (Art. 1, para. 1 of the Spatial Development Act (SDA))[2]. They form "a green system as a means of improving the microclimate and hygienic conditions and organizing the recreation of the population" (Art. 62, para. 1 of the SDA) [2].

The park development activities and the activities for the construction and maintenance of the Green System of the city of Sofia are defined by the Law on Planning and Construction of Sofia Municipality, in force since 28.01.2007, and in particular by the one regulated by it in Art. 3 (1) General Development Plan of Sofia Municipality and in Art. 3 (2) [3] Rules and norms for planning and construction on the territory of Sofia Municipality, separated in a separate annex. The rules and norms for the implementation of the plan determine the spatial and functional designation, the restrictions on construction and the indicators for construction of the different types of territories, development zones and independent terrains [3]. Here are also defined the park development indicators "amount of green areas" for the respective development zones, expressed as a percentage of the total area of the regulated land property and "tree vegetation", as a percentage of the green areas. It is immediately noticeable that the indicators are only quantitative and the quality of the green areas is not regulated anywhere. Probably, the legislator relied on the fact that greater specificity could be achieved with the regulation in Art. 19 (1) Ordinance for the Construction and Protection of the Green System on the Territory of Sofia Municipality [3], in force since 13.03.2013, but this has not happened.

All this, combined with the construction boom and the continuous migration to the city, as well as the ambition of the mayor and the current chief architect of Sofia Municipality to prevent the expansion of the physical boundaries of the city at the expense of densification and unregulated parking in the green areas, leads to a complete compromise of the meaning of the urban green system and quite logically ranks the city at the top of the negative rankings in recent years. Today we are

leading in Europe in air pollution above permissible norms, respiratory problems, cardiovascular diseases, etc.

The lack of specifics in the regulatory framework and its replacement with verbal instructions by the mayor, municipal councilors and especially by the administration of the chief architect of Sofia Municipality, lead to unpredictability and the impossibility of following a unified concept for building the green system of the city. These verbal instructions and instructions, for the most part, are not based on a professional basis and are imposed on investors, designers and contractors without public discussions and without a clear justification of the reasons that impose them. In addition, in the 24 district administrations, they are interpreted differently and this further increases the administrative burden. Over time, and especially in the last 5-6 years, this creates a sense of corruption practices and fear in the end consumer, which in turn led to a legal attack on the texts of the ordinance by the association of builders. [4]

Looking carefully at the above, and taking into account some more global causes, such as climate change and the fight against heat islands forming in urban environments, which the 2008 ordinance did not comply with at all. As well as the fact that the ordinance has not been changed and updated over the years, creating a false sense of sustainability, taking into account the international experience and the direction in which the big cities are going, today we can confidently say that Sofia needs a completely new legal framework regulating a sustainable and integrated approach to the construction and development of the urban environment with special attention to the element of the Green System with a long-term horizon in the context of global climate change and the escalating urbanization worldwide.

On June 27, 2023, an Ordinance was adopted to amend and supplement the ordinance on the construction, maintenance and protection of the green system of Sofia Municipality. Unfortunately, the general impression in the professional community is that a rare chance for synchronization of the regulatory framework in accordance with globally established practices has been wasted. This happened quite campaigningly, after the usurpation of the working group by the municipal administration, disregard for the opinions of the professionals in it, without discussing the final version in the working group and disagreement of the members with the proposed texts by the representatives of the NAG, as well as without a real discussion of the opinions and proposals received, subsequently, during the so-called "public discussion".

This version of the ordinance cannot even be called "palliative", as it does not offer even temporary solutions to the serious problems of the green system in the city of Sofia.

The amendments to the ordinance can be divided mainly into two groups that are unfavorable for the development of the urban environment:

- Transferring responsibilities and obligations of the municipality to the end user;
- Restrictive - stopping the application of globally established, modern park development practices in the urban environment.

Moreover, to the first group, in addition to the fact that the obligation of Sofia Municipality, regulated by the Law on Long-Lived Vegetation on the territory of Sofia Municipality, is transferred to the citizens, the designers-landscape architects are charged with providing services beyond their competence, such as geodetic coordinates, for which they will subsequently be responsible with the project documentation stamped and signed by them. A similar development can be observed in relation to the sites of the 5th category, for which the newly adopted Ordinance allows the park development indicators to be proven with a drawing "Situation" by specialties that do not have competencies in the field of park planning. The question immediately arises: what is the difference in the park development indicators in the 5th category with the other categories and how will the lack of relevant competencies in the individual specialties lead to the construction of a better urban environment?

With regard to the second group of changes, creating mainly restrictions imposed by the administration and caused by incompetence in the field of landscape architecture, as well as lack of knowledge of the biological aspects of plantations in an urban environment by the administration, composed of specialists with a different educational and qualification degree, with total disregard for the expert opinion and the opinions received subsequently from professional organizations, we can mention: the introduction of a minimum soil layer of 40 cm for roof landscaping (grassing), given that modern systems allow it to be 7-12 cm. As well as a minimum soil layer of 120 cm for woody

vegetation located above a basement or on green roofs, provided that there are suitable plant species with shallow root systems, which, combined with modern technologies and substrates, can develop excellently on 30-40 cm. This burdens and significantly increases the cost of the construction of the building, and we can quite rightly call it an administrative burden that will reflect on the final cost of construction and will financially burden the end user. We can say that this condition further demotivates the builder to build green roofs, and this, together with the other restriction introduced by this ordinance, vertical landscaping to be no more than 10 percent of the area of the property, significantly distances Sofia from modern trends and practices in the field of landscape architecture and urban planning. In opposition to this ordinance, the City of Madrid in 2017 drafted and adopted regulations with which it intends to increase the green areas in the city by 2050 through vertical and roof landscaping by 30%. Experts say that in this way they will reduce the annual temperature amplitude by 4 to 6 degrees, and this, in turn, will lead to a reduction in heating and ventilation costs by about 4 billion euros. Of course, the reduced costs for heating and ventilation lead to a reduction in harmful emissions in the urban environment. Vertical landscaping on this scale will lead to an increase in air humidity and will create conditions for local cloudiness and precipitation, as the vegetation on the roofs of buildings will reduce surface runoff and turn it into ground. The vegetative volume from the vertical landscaping will create conditions for the retention of water volumes during heavy rainfall, preventing overloading of the sewerage network, as forest plantations do this. It is known that one hectare of forest plantations retains up to 80 tons of water on its aboveground parts. And last but not least, the "upholstered" urban surfaces will significantly reduce the effect of the so-called. heat islands.

In general, a similar synergistic approach has been adopted by all modern cities. Vancouver, with a special ordinance from 2008, made the roof landscaping of public and industrial buildings mandatory, and at least 50% of the roof area must be covered with landscaping or photovoltaic panels. In 2010, similar ordinances were adopted by many American and European cities, including Bonn, Bern, Paris, etc. In our country, unfortunately, the adopted texts are in the opposite direction. They do not define a concept for the development of the green system of the city of Sofia, do not identify measures to improve the quality of plantations and, accordingly, have no relation to the improvement of the urban environment. The document does not consider the green areas in the capital as part of a single system and relies on the random development of the green system, without planning and setting goals and priorities for it.

Conclusion. In general, the adopted amendments to the ordinance significantly deepen the problems of the green system in the city of Sofia and distance the urban development of the capital from the world practice.

The city needs a completely new regulatory framework with a long horizon and clear and pragmatic goals, in the context of modern challenges.

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