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Urban plan as a precondition for continuous and directed development – the example of the Nikola Tesla Airport ³

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Abstract: *Belgrade Nikola Tesla Airport, as a complex of strategic importance for the Republic of Serbia, has been the subject of planning, study and design elaboration through several urban planning documents in different periods. Although the realization of the basic planning settings for the development of Belgrade Airport, formulated in 1972 and 1985, was accompanied by economic difficulties and changes in the dynamics and phases of realization, the strategic concept of development of this complex remained unchanged. Further development of the airport through the construction of the second runway, improvement of existing and construction of new facilities in order to increase capacity, monitor trends in air traffic development and growth of passenger and goods traffic, was confirmed through the Master Plan of Belgrade and the Plan of General Regulation of the building area of local self-government units' seats – City of Belgrade, both documents from 2016. A new planning document, the Plan of Detailed Regulation for the airport „Nikola Tesla Belgrade“, was adopted in 2020. The Paper analyzes the spatial conditions, gives a historical overview of planning and realization of the area and presents the urban planning*

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³ *The Plan of Detailed Regulation for the airport „Nikola Tesla Belgrade“* was made at the Urban Planning Institute of Belgrade in 2020, authors: Maja Joković Potkonjak, Dragan Mihajlović, Jelena Đerić

solutions for the development of the Airport "Nikola Tesla Belgrade", with a planning horizon until 2043.

Keywords: *air traffic, airport, Nikola Tesla Belgrade, runway, urban plan*

Urbanistički plan kao preduslov kontinuiranog i usmerenog razvoja – primer aerodroma „Nikola Tesla“, Beograd, Srbija

Apstrakt: *Aerodrom Nikola Tesla Beograd je kao kompleks od strateškog značaja za Republiku Srbiju, bio predmet planske, studijske i projektantske razrade kroz više dokumenata u različitim periodima. Iako su realizaciju osnovnih planskih postavki razvoja beogradskog aerodroma, formulisanih još 1972. i 1985. godine, pratile ekonomske teškoće i izmene u dinamici i faznosti realizacije, strateški koncept razvoja ovog kompleksa ostao je nepromenjen. Dalji razvoj aerodroma kroz izgradnju druge poletno-sletne staze, unapređenja postojećih i izgradnju novih sadržaja u cilju povećanja kapaciteta, praćenja trendova razvoja vazdušnog saobraćaja i rasta prometa putnika i robe, potvrđen je kroz GUP Beograda i PGR Beograda, dokumente iz 2016. godine. Novi planski dokument, Plan detaljne regulacije za područje Aerodroma Nikola Tesla, usvojen je 2020. godine. Rad analizira prostorne uslovljenosti, daje istorijski osvrt planiranja područja i prikazuje plansko rešenje razvoja Aerodroma "Nikola Tesla Beograd", sa planskim horizontom do 2043. godine.*

Ključne reči: *vazdušni saobraćaj, aerodrom, Nikola Tesla Beograd, poletno-sletna staza, urbanistički plan*

1. Introduction – Previous planning documentation

"The problems of Belgrade airport (and Belgrade airports) have been attracting the attention of airport experts and urban planners of our city in recent years" (Radovanović, 1973.) wrote urban planners back in 1973, preparing analyzes for the airport's urban plan at that time called "Airport Belgrade". Continuous planning of the airport complex has been in the focus of experts for decades.

In 1988, the Detailed Urban Plan of Belgrade Airport (DUP) was adopted for the existing Belgrade airport complex (DUP aerodroma, 1988). The DUP envisaged the basic technical - technological and capacity requirements for the phased development of the airport until 2010, with a maximum capacity of about 11 million passengers and a turnover of 200,000 tons of goods annually.

DUP analyzed an area of nearly 1051 ha, and the former airport complex has been increased by about 650 ha. The planning solution defines maneuvering areas (runways, taxiways and platforms); zone of passenger complexes

(passenger-port zone, airport services zone, aircraft fuel distribution zone and general purpose zone); technical complex (zone of JAT airline, zone of other airline companies, zone of air service of federal bodies and zone of special purpose with limited regime of use); traffic areas (airport highway, airport transversal and other roads); and green areas.

This plan envisioned future airport complex of total gross building area (GBA) of 550,000 m², and 29 existing facilities are planned to be retained (including the Aeronautical Museum, air traffic control buildings, passenger terminals 1 and 2, control tower, catering facilities, hangars, warehouses, garages, infrastructure and technical facilities, etc.). The planned solution enabled the reconstruction, adaptation and extension of these facilities in order to improve the basic function or increase the capacity by up to 30%.

Regarding the civil engineering facilities, in 1988 was planned to build a second runway with the necessary taxiways and platforms, as well as the associated terminal building and other infrastructure. The axis of this runway was planned at a distance of 1920 m from the axis of the existing runway.

Two important roads are planned within the complex: the airport highway that passes through the entire airport complex and connects the E70 Highway on the northwest side with the Surčin Road on the southeast side; and airport transversal - roads that provide access to passenger terminals. The rail connection of the airport with the railway junction is also planned. The position and manner of providing the railway track is based on the concept of the railway network of the 1985 Master Plan of Belgrade (GUP 2000, Kostić, 1985). The passenger railway as a connection between the airport and the city was not envisaged by this solution.

Green areas in the protection zone are planned as plain grass areas in the width of 105 m from the axis of the protection zone of the basic runway, or 50 m from the axis of the taxiways. The remaining free land along the border of the complex, and outside all maneuvering areas and their protection zones, is planned as agricultural land with restricted and precisely defined agricultural crops.

Having in mind the social changes and the general economic situation in the period envisaged for the realization of the airport complex, the DUP from 1988 was not realized to a significant extent. Within the existing airport complex, the zones of the passenger and technical complex have been partially realized, in terms of expanding the capacity of the existing facilities. The planned new passenger terminal with the new runway and accompanying infrastructure were not built, as well as the retail and catering facilities (hotels) and garages within the passenger complex. Also, additional hangars and capacities intended for the administration, fire and medical center have not been built, and blocks of

technical services, special purpose zones and energy zones have not been improved and organized. Within the technical complex, the goods - production zone has not been realized, as well as the technical block in the function of the new runway, which has not been built. The main road of the complex - the airport highway has been partially realized.

2. The planning document of the new generation – meeting contemporary needs by the horizon of 2043

Air traffic is becoming increasingly important, as a part of the wider transportation infrastructure, due to the increase in the mobility of people and goods. The airports of the future have the task not only to serve a huge number of users, but also to attract as many carriers as possible and offer quality and diverse services. The development of airport infrastructure is an activity of general interest and is based on *"principles of security, intermodality, application of modern technologies, complementary use of all modes of transport and rational use of available capacities and resources in the country for the benefit of all citizens."* (Strategy for the Development of Railway, Road, Water, Air and Intermodal Transport in the Republic of Serbia from 2008 to 2015, 2008).

The initiative for the development of a new and modern planning document (Plan of Detailed Regulation - PDR) was launched in 2016. The development of the PDR was started in order to define the public interest (purpose, capacity and content of the airport complex in accordance with technological needs and development program), determine the airport protection zone, as well as create planning opportunities and provide technical infrastructure capacity for planned construction. The methodology of development, adoption and implementation of the Plan of Detailed Regulation for the complex of the airport "Nikola Tesla Belgrade" is based on the Law on Planning and Construction of the Republic of Serbia and bylaws. Based on the innovated Development Strategy, which defines the reconstruction of the existing and introduction of the inserted runway until 2043, a new spatial and program solution was developed in 2019. According to current requirements, a framework has been created to define new development, modernization, improvement, maintenance and management of the infrastructure of the existing airport complex.

As related research, the airport in Belgrade could be compared to the airport in Zagreb. The expansion of the airport in Zagreb is planned according to a methodology similar to the expansion of the airport in Belgrade - according to national laws and in accordance with the Strategy of Physical Planning of the State. The expansion and modernization of the "Franjo Tuđman" Airport in

Zagreb (formerly the "Pleso" Airport, opened in 1962) is planned in the Spatial Plan of the City of Zagreb, which was adopted in 2014. The planning document envisages the construction of new terminal areas and defines the need for a new runway. The construction of the new terminal in Zagreb, which opened for use in 2017, took three years and is one of the largest infrastructure projects in Croatia in the last 15 years, in which about 300 million euros have been invested.

3. Analysis, concept of planning solution and spatial division

The border of the Plan of Detailed Regulation for the complex of the airport "Nikola Tesla Belgrade" (PDR) covers an area of about 1870 ha. The scope of PDR includes the existing complex of the airport "Nikola Tesla Belgrade", the area planned for further development of the airport, the protection zone of the airport, part of the area of spontaneously created residential zones and the area planned for the industrial and commercial facilities south of the highway. The planned traffic corridors and the borders of the protection zones of the airport complexes conditioned the basic division into five spatial units, defined according to specific land use (Fig.1).

Units I and II have the greatest development potential, having in mind the proximity of the highway and the planned traffic service, as well as the deficit of accompanying facilities along the airport complex. Commercial facilities of a higher degree of attraction are planned (larger trade formats: hypermarkets, outlet and retail parks, shopping centers, showrooms, hotels, congress and business centers, business parks, etc.). Unit I includes blocks within which the planned areas for industrial zones and facilities are compatible with the main purpose of the airport complex (logistics centers, shipping, business parks, warehouses, etc.). Within Unit II areas for commercial facilities, industrial zones and complex of the Aeronautical Museum Belgrade are planned.

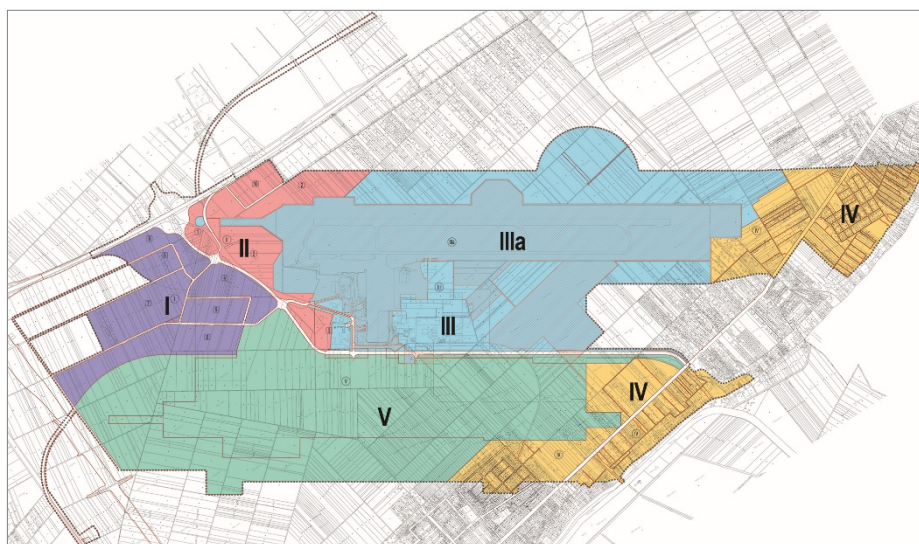
Within Unit III, public traffic areas are planned, with the existing complex of the airport "Nikola Tesla Belgrade" (ANT) and green areas (protective green belt of the airport). According to the specifics of the content and technology of the airport complex, Unit III is divided into special zones, with the concessionaire zone of the concessionaire that stands out as a special Subunit IIIa.

Unit IV includes blocks of spontaneous housing construction in the contact area of the existing airport complex and the space planned for the future development of the airport, along the territory south of Vojvodjanska and Surčinska streets. The PDR defines the conditions for the rehabilitation of part

of the spontaneously created residential zones, while new construction capacities and communal infrastructure are not allowed.

Unit V includes planned public areas intended for the airport development complex and public green areas - protective green zones. The area is reserved for the construction of the second runway with the associated infrastructure, a new passenger terminal, accompanying services, logistics and technical facilities, in accordance with the future needs of air traffic development. Within this unit, the facilities and contents of the railway infrastructure are planned: two-track railway, passenger and freight railway station and manipulative tracks.

Figure 1. Concept of characteristic planned spatial units



4. Zoning of the airport complex

According to the Law on Airports Management (Official Gazette of RS, No 104/16 and 31/19), the airport complex "Nikola Tesla Belgrade" (ANT complex) is defined as a public traffic area and a protective green zone. The ANT complex is, based on specific requirements, divided into the following functional zones: passenger terminal zone, service and logistics content zone, platform and manipulative areas zone, special purpose zone, technical services zone, airline zone, infrastructure zone and road zone in the function of the complex.

The zone of the passenger terminal includes the basic airport contents related to visitors, reception and dispatch of goods and passengers, with all the necessary accompanying contents from the domain of security, administration, commercial and service contents intended for all users.

Within the zone, the reconstruction and upgrade of the existing integrated terminal is planned, as well as the conversion and adaptation of the existing control tower after it's relocation. New design of reconstructed and new terminal building must achieve a high aesthetic standard, considering the attractiveness of the purpose and the representative position within the ANT complex.

The zone of service and logistics contents includes the widest range of accompanying contents and facilities necessary for airport operations and adequate functioning of the airport complex, as well as cargo air traffic with complementary purposes. In the zone are planned: facilities and complexes of air traffic control services, customs, post office, airport cargo services (facilities for receiving and dispatching goods, warehouses and warehouses for storage of goods, facilities for employees and administration of the cargo zone, etc.), catering services, complex for supply of aviation fuel, administrative facilities, warehouses, service facilities, as well as parking areas intended for airport visitors and employees. The existing fuel supply complex has been identified as an obstacle to the future development of the airport and the realization of a railway passenger station that are in the zone of the effects of the chemical accident, and it is necessary to start planning activities to relocate it.

The area of platforms and maneuvering surfaces includes all necessary areas intended for take-off, landing, ground movement and landing of aircrafts. This zone is also in function and in connection with the zones of the passenger terminal, technical services, service and logistics facilities, the cargo zone and the zones of other airline companies. Traffic and car accesses to the zone are conditioned by the security-restrictive regime of access and use of the airport complex.

In line with the current development plans of the complex, the reconstruction of the existing and construction of the inserted runway is planned, as well as the reconstruction of the existing and construction of a new system of taxiways, maneuvering surfaces and platforms of various types intended for air traffic and aircraft maintenance. Precise solutions for these areas will be defined through the future preparation of technical documentation.

The special purpose zone includes services of specific security requirements. Within the complex of police department helicopters unit, the construction of a new hangar, antenna pole, garage, underground shelter and the construction of a new helicopter heliport are planned.

The zone of technical services includes facilities for servicing and technical maintenance of aircrafts. It is planned to improve the airport technical maintenance services by reconstructing the existing facilities and building new hangars, warehouses, workshops and accompanying facilities and areas.

The ANT complex is the base of the national airline company Air Serbia, whose existing facilities (hangars, catering facilities, administrative facilities, etc.) are located within the airline zone. The improvement of those services is envisaged by the construction of new facilities (hangars, flight simulators and accompanying and administrative facilities) as well as the construction of a new hangar and the necessary infrastructure intended for general aviation and other airline companies.

The improvement of the zone of infrastructural areas is planned through the construction of infrastructural areas and facilities in the function of the ANT complex.

5. Complex reserved for airport development after 2043

The complex reserved for the future development of the airport is located within the Unit V and includes space intended for the future development of the airport in the period after 2043. The planning solution is mostly based on the technical documentation prepared in the previous period, in accordance with the conditions of the institutions relevant to the air traffic safety and strategic airport development. The construction of the second runway with all the associated infrastructure (taxiways, platforms, air traffic control devices etc.) is planned. The construction of a new passenger terminal, accompanying service, logistics and technical facilities will be defined in accordance with the future needs of air traffic development.

At this stage, the planning solution didn't specify the specific contents, construction capacities and the solution of the traffic and utility infrastructure. This will be issued through the development of an urban project, after the preparation of a preliminary feasibility study with the general project, and the cooperation with all relevant institutions and public utility companies.

An underground passenger railway station is also planned within the complex, whose exact position and dimensions will be determined through the development of a unique urban project for the entire complex, based on the general project and further technical documentation.

6. Air traffic and special protection conditions

The Airport Development Master Plan, through the construction and reconstruction, maintenance and management of the infrastructure of the existing airport complex, defined the traffic development strategy, estimation of the annual number of passengers, estimation of the annual number of operations, and other indicators on which further development of the ANT complex were assessed. The analysis with the traffic prognosis showed that the existing runway (PSS 1, 3400 m long and 45 m wide), with the construction of a sufficient number of exits and taxiways, will be sufficient to perform 45 operations per hour. This satisfies the needs of the planned volume of air traffic until 2043 (estimated at about 15 million passengers).

Considering that a complete reconstruction of the pavement structure of the existing PSS 1 in Unit III (built in the period from 1959 to 1962) is necessary, the construction of the so-called "inserted" runway (3500 m long and 45 m wide) is planned. The inserted track is planned in the position between PSS 1 and the parallel taxiway. It is planned that the inserted PSS will take over the function of the airport runway during the reconstruction period of PSS 1, and after that it would function as an additional parallel taxiway. Along with the reconstruction of the existing PSS 1, the reconstruction of the existing and construction of new taxiways, construction of four new taxiways for quick exit as well as upgrading of manipulative surfaces and platforms of different categories are planned.

Having in mind the need for long-term consideration and reservation of space for future development, the PDR defines the space for further improvement of the airport and construction of the second runway (PSS 2). PSS 2 is planned with all the accompanying infrastructure, services, logistics and technical facilities. PSS 2 axis is precisely defined, and all other contents (technical elements of PSS 2 solution, taxiways, couplings, taxiways for fast exit, platforms, terminals, parking lots, railway corridor and railway station, manipulative spaces, signaling, radars, navigation systems, meteorological equipment, etc.), will be defined by the future Urban Project. The Urban Project must be done through detailed technical elaboration, in order to have the most efficient and safest functioning of the airport.

The planning solution with three planned runways initiated active cooperation with all relevant institutions. It was necessary to consider all the requirements for limiting obstacles in the airspace of the airport and its immediate surroundings, in order to safely conduct operations at the airport. The conditions of the institutions and the valid regulations in the field of safe air traffic and uninterrupted functioning of the radio navigation devices of the air

traffic control service, influenced the definition of the conditions for the construction of the three runways. They also influenced the definition of protection zones, zones of radio-navigation devices in which construction is not allowed, and zones in which construction is possible under certain conditions. In that way, the security conditions in this area significantly influenced the definition of construction zones in all units, as well as the definition of the maximum allowed heights of planned construction.

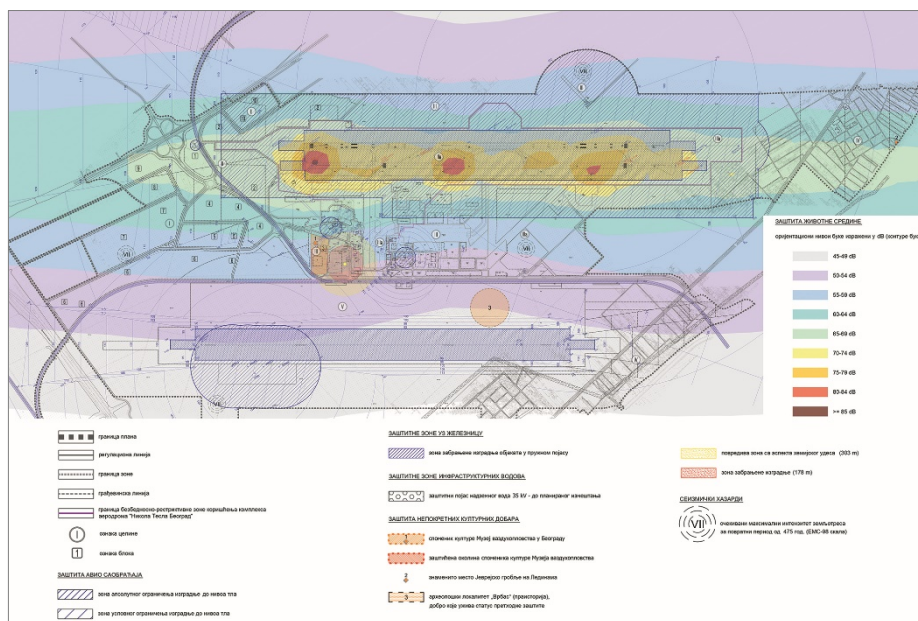
In accordance with the Law on Air Traffic (Official Gazette of RS, No 73/10, 57/11, 93/12, 45/15, 66/15 and 83/18), new buildings and facilities as potential obstacles may affect the safety of air traffic and operation of radio devices used in air navigation. For this reason, prior to construction in the area or outside the airport area, it is mandatory to obtain the consent of the Directorate of the Civil Aviation. Detailed conditions are defined by the applicable regulations: the Ordinance on the conditions and procedure for issuing airport certificates (Official Gazette of RS, No 11/17 and 16/19), and the Ordinance on the conditions for issuing certificates for the installation of facilities, installations or devices that emit or reflect radio radiation (Official Gazette of RS, No 122/14).

According to the stated regulations and standards, each runway has a corresponding prohibited construction zone (60 m long behind the ends of the PSS, 150 m wide and 140 m on both sides of the PSS). Installation or construction of facilities is not allowed in this zone. The installation of visual aids required for navigation or those required for aircraft safety is permitted.

Another important condition is the protection of the uninterrupted functioning of radio navigation devices, which objects can be affected not only by their height, but also by volume, size and materialization. Existing and planned radio-navigation devices are planned at the airport, which have protection zones in which facilities should not be located in order for the devices to function properly.

The map "Limitations of Urban Development" (Fig. 2) graphically shows all restrictions in this area and defined protection zones.

Figure 2. Limitations of urban development - Graphic presentation



6.1 Environmental protection

In parallel with the development of the Plan (PDR), the Report on Strategic Environmental Assessment was prepared. The Report presents the estimated impact of the implementation of the planning solution on the environment and the environment of the covered area. Based on the available data, the Report discusses the current state of the environment in the territory covered by the Plan, as well as the impact of the planned contents on the micro and macrolocation (in the contact area and the assumed impact zone). In accordance with the current regulations in this area, measures are planned to reduce or mitigate the negative consequences of planned construction on the environment, guidelines for impact assessment in the implementation phase of the Plan, as well as a program for monitoring the environment in the post-planning period.

7. Cultural Institution – The Aeronautical Museum Belgrade

The Aeronautical Museum Belgrade is located within the Unit II, the unique cultural institution in the Republic of Serbia, as an institution of importance for the domestic history of aviation and as an object of high architectural qualities. It has been determined as an Cultural Propertie (Official Gazette of RS, No 72/13). One of the leading museums of this type in the world, it was founded in 1957 by the Air Force Command. This museum was built in the period from 1969 to 1989 within the Belgrade Airport complex, according to the project of architect Ivan Strauss and the design solutions of Belgrade civil engineers. Exceptional design qualities and successful solution of functional requirements within the complex program of the museum building resulted in the construction of unique architecture which is one of the anthological achievements of Yugoslav post-war architectural production, whose creative potential was confirmed by the Yugoslav "Borba" Award for best architectural achievement in 1989. The Aeronautical Museum is an original architectural achievement and one of the most significant examples of museum architecture in Serbia. Since 2019, the Museum is under the jurisdiction of the Ministry of Defense.

The Aeronautical Museum collections, along with rich accompanying documentation and archives from all periods and areas of aviation history, make up the most representative collection of civil and military aviation. They represent an important source for a comprehensive overview of the development of aviation in our region from 1911 to the present day. In addition to the indoor space with a capacity of about 10,700 m², which houses numerous exhibits and collections, the surroundings of the building are also used as an exhibition space for the presentation of the museum exhibit.

In accordance with the current needs of the Aeronautical Museum, as well as the issue of inadequate conditions for exhibiting and maintaining museum exhibits, the Plan envisages the construction of hangars for large exhibits, workshops, new space for outdoor exhibitions.

8. Conclusion

The transition period and different social climate influenced the change of ownership relations within the airport complex. The specificity of land use and technology of the airport has singled out different groups of stakeholders and participants who operate within restrictive and controlled zones. Functionally, administratively and legally, certain companies and enterprises stood out. In order to zoning the airport complex, it was necessary to look at the current

cadastral and existing situation, and then start looking at the problems, needs and future development plans of all stakeholders of the airport complex.

The initiative for drafting the Plan (PDR) was launched with the aim of defining the land use, capacity and facilities of the airport complex in accordance with technological needs and the airport development program, defining public interest, creating planning opportunities and providing technical infrastructure capacity for planned construction and also determining the airport protection zones.

Planning solution provides land activation in the contact airport zones through development of the industrial-commercial potentials along the highway.

The adopted urban plan of the area is a starting point with all necessary restrictions and condition for the development of the airport complex. The Plan of Detailed Regulation for the airport „Nikola Tesla Belgrade was adopted in 2020 (Official Gazette of the City of Belgrade, No 36/20). The planning solution of the airport complex and its surroundings until 2043 and the concept of spatial development of the airport for the period after 2043, defined the planning basis for the preparation of technical documentation and concrete realization of content to full capacity.

Modernization, improvement, and further development of the existing airport complex is enabled through reconstruction of existing and construction of new facilities, to increase efficiency and raise the level of airport service.

Airport protection zones in the area are determined with all appropriate planning and construction rules. Through application of appropriate rules and protection measures, the Plan defined improvement of environmental quality in the area.

The realization of the planning solution in Belgrade started at the beginning of 2020, when the works on the modernization and expansion of the Belgrade Nikola Tesla Airport began in accordance with the adopted planning act. At the time of writing (beginning of 2022), planned works are being carried out, including: extension of the terminal, new, inserted runway and additional taxiways, additional aircraft parking positions, new de-icing and anti-icing platform, additional parking spaces for cars as well as new access roads.

References

- Časopis „Urbanizam Beograda“, broj 21, Prilog 2 „Analiza teme aerodroma“, Milenko Radovanović, Urbanistički zavod grada Beograda, Beograd, 1973.
Generalni urbanistički plan Beograda 2021 („Službeni list grada Beograda“ br. 11/16)

Detaljni urbanistički plan aerodroma „Beograd“ (DUP aerodroma) („Službeni list grada Beograda“ br. 25/88)

Izmene i dopune Generalnog urbanističkog plana Beograda 2000; rukovodilac izrade Plana: Konstantin Kostić (1985. godina)

Izmene i dopune Regionalnog prostornog plana administrativnog područja grada Beograda („Službeni list grada Beograda“ br. 38/11)

Monografija „70 godina Urbanističkog zavoda Beograda“, (ISBN 978-86-83273-08-9) (Zbirka), Urbanistički zavod Beograda, 2018.

Odluka o donošenju Prostornoga plana Grada Zagreba („Službeni glasnik Grada Zagreba“ br. 8/01, 16/02, 11/03, 2/06, 1/09, 8/09, 21/14, 23/14 - pročišćeni tekst, 22/17)

Odluka o proglašenju Muzeja vazduhoplovstva za spomenik kulture („Službeni glasnik RS“ br. 72/13)

Plan detaljne regulacije za kompleks aerodroma „Nikola Tesla Beograd“, gradske opštine Surčin, Novi Beograd i Zemun („Službeni list grada Beograda“ br. 36/20)

Plan generalne regulacije građevinskog područja sedišta jedinice lokalne samouprave – grad Beograd (celine I - XIX) („Službeni list grada Beograda“ br. 20/16, 97/16, 69/17 i 97/17)

Pravilnik o uslovima i postupku za izdavanje sertifikata aerodroma („Službeni glasnik RS“, br. 11/17 i 16/19)

Pravilnik o uslovima za izdavanje potvrde za postavljanje objekata, instalacija ili uređaja koji emituju ili reflektuju radio-zračenje („Službeni glasnik RS“ br. 122/14)

Prostorni plan Grada Zagreba, Zavod za prostorno uređenje grada Zagreba, Zagreb, 2014.

Prostorni plan gradske opštine Surčin („Službeni list grada Beograda“ br. 10/12)

Strategija razvoja grada Beograda („Službeni list grada Beograda“ br. 21/11)

Strategija razvoja železničkog, drumskog, vodnog, vazdušnog i intermodalnog transporta u Republici Srbiji od 2008. do 2015. godine („Službeni glasnik RS“ br. 4/2008)

Uslovi za definisanje maksimalne visine gradnje u okolini aerodroma Nikola Tesla Beograd (2019.); grafički prilog „Ograničenja urbanog razvoja“; Dokumentaciona osnova Plana detaljne regulacije za kompleks aerodroma „Nikola Tesla Beograd“, gradske opštine Surčin, Novi Beograd i Zemun („Službeni list grada Beograda“ br. 36/20)

Zakon o planiranju i izgradnji („Službeni glasnik RS“ br. 72/09, 81/09, 64/10, 24/11, 121/12, 42/13, 50/13, 98/13, 132/14, 145/14, 83/18, 31/19, 37/19, 9/20 i 52/21)

Zakon o upravljanju aerodromima („Službeni glasnik RS“ br. 104/16 i 31/19)

Zakon o vazdušnom saobraćaju („Službeni glasnik RS“ br. 73/10, 57/11, 93/12, 45/15, 66/15 i 83/18)