

COMPETITION BRIEF

COMPETITION FOR THE CONCEPTUAL URBAN AND ARCHITECTURAL DESIGN OF A RESIDENTIAL AND COMMERCIAL COMPLEX WITHIN THE 'CITY HOUSING' PROJECT IN PODGORICA

Capital City of Podgorica

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1. INTRODUCTION

Housing represents one of the basic human needs and directly affects the quality of life, social inclusion and economic opportunities of an individual. In modern urban environments, the issue of housing is becoming increasingly important due to rising real estate prices, lack of affordable housing units and changes in household structure.

As the largest urban centre in Montenegro, the Capital City of Podgorica faces significant challenges in the field of housing: a considerable number of households do not have permanent housing solutions, high prices of new construction make access to housing limited for a large part of the population, while young people, single parents and large families are particularly vulnerable.

By launching this project, the City aims to actively contribute to solving the housing issue through the construction of social and affordable housing, improving the quality of life of citizens and promoting social cohesion. The project brief defines the framework for the preparation, planning and implementation of a program that will enable adequate and affordable housing for vulnerable categories of the population, as well as all others, in accordance with the principles of sustainable urban development.

The Mayor of the Capital City of Podgorica issued a Decision on announcing a competition for the conceptual urban-architectural design of a residential - commercial complex within the "City Apartment" project in Podgorica No. 01-018/25-5907 of 12 September 2025.

The legal basis for the adoption of the Decision is contained in the provisions of Article 15, paragraphs 1 and 4 of the Law on Construction of Structures ("Official Gazette of Montenegro", Nos. 19/25 and 95/25), Article 6 of the Rulebook on the Manner and Procedure for Announcing and Conducting a Public Competition for a Conceptual Architectural Design ("Official Gazette of Montenegro", Nos. 19/18, 2/24 and 8/24), as well as Article 100, paragraph 1, item 20 of the Statute of the Capital City ("Official Gazette of Montenegro – consolidated text", Nos. 8/19, 20/21 and 49/22).

The competition for the conceptual design is announced and conducted in accordance with the Rulebook on the Manner and Procedure for Announcing and Conducting a Public Competition for a Conceptual Architectural Design ("Official Gazette of Montenegro", Nos. 19/18, 2/24 and 8/24).

The subject site is situated within the scope of the current DUP "Konik – Stari aerodrom Phase III" ("Official Gazette of Montenegro – consolidated text", No. 6/12) and is currently undeveloped.

2. SUBJECT AND OBJECTIVE OF THE COMPETITION

The subject of the competition is the development of an urban-architectural design for a residential complex with a focus on social and affordable housing. The design includes a comprehensive concept of spatial organization, a typology of apartments of different sizes, common and ancillary facilities, as well as the architectural form shaped in accordance with the principles of functionality, sustainability and inclusiveness.

More recent residential architecture in Podgorica, with rare exceptions, demonstrates a low level of spatial and design innovation. This situation is largely a result of systemic weaknesses in the urban planning process, further compounded by tight deadlines and limited budgets, which often results in apartments of modest quality and structures that degrade the urban environment.

One of the objectives of this competition is to show that even in conditions of limited resources, it is possible to achieve high-quality architectural solutions that meet the needs of residents and contribute to the image of the city.

Competition entries are expected to provide:

- **Spatial flexibility** - solutions can accommodate different types of households, with particular focus on socially vulnerable groups;
- **Distinctive and functional design** – architecture aligned with the local context, using creative and functional solutions within realistic budget constraints;
- **Quality of Collective Housing** – The proposed solutions should ensure a high standard of living through thoughtful spatial organisation. Particular emphasis is placed on spatial and environmental harmony with the broader urban and natural context, as well as on the creation of green and communal areas that foster a sense of community, safety, and belonging.
- **Energy efficiency and sustainability** – integration of sustainable principles, including efficient energy use, quality passive protection and the use of environmentally friendly materials;
- **Applicability and reference value** – a solution that can serve as an example of good practice for future public housing projects.

3. GENERAL CHARACTERISTICS OF THE AREA

The Assembly of the Capital City of Podgorica, at its session held on 21, 27, 28 and 29 March 2024, adopted the Decision on determining the site for the construction of a residential-commercial building for the implementation of the "City Apartment" project ("Official Gazette of Montenegro – consolidated text", No. 19/24). The boundary of the intervention area is given on the geodetic base in the competition material. **The intervention area covers**

18,673m² (1.86 ha), and includes cadastral plots Nos. 7893/57, 7893/58, 7893/60, 7894/2 and 7894/3 CM Podgorica III, which constitute urban plots No. UP 40a, UP 41 and UP 42 within the scope of the DUP "Konik – Stari aerodrom - Phase III" ("Official Gazette of Montenegro – consolidated text", No. 6/12).



View of the site in the city

The site is located on the south-eastern edge of Podgorica, approximately 2.8 km away from the city centre. The immediate surroundings of the site are characterized by various urban and natural typologies. To the northwest is the urban neighbourhood of Stari aerodrom, which is predominantly composed of individual residential buildings, along with low-intensity multi-family housing. To the north of the site is the training camp of the Football Association of Montenegro, with plans for the construction of a national football stadium. To the east of the site is a belt of protective forest designated in planning documents for transformation into a city park, while to the south are the open areas of Čemovsko polje, mostly covered with vineyards, which give the area a distinctive landscape character.

The diverse urban and natural context represents a special potential for the development of a high-quality residential environment, which should combine accessibility, functionality and a high quality of life.

The traffic infrastructure within the immediate area has not yet been fully developed, but the recently opened Veljko Vlahović Boulevard, as the main road in this part of the city, has significantly improved accessibility and enabled further infrastructural development of the area and its connection with other parts of the city. The site itself is undeveloped, as are the immediate surroundings, with the exception of the Elderly Care facility. The current planning documentation provides for intensive urban development through the construction of residential blocks, educational, administrative, commercial and sports facilities, as well as a park covering a significant area.

3.1. Data from spatial-planning documentation

The subject urban plots UP 40a, UP 41 and UP 42 are located within the DUP "Konik - Stari aerodrom - Phase III" in Podgorica, in an area designated as mixed-use.

When determining the basic concept of the planning solution, it was also assumed that the future users of a large part of the plan are not yet known, and the planned use is specific, so the restrictive subdivision, as well as the inflexible regulatory elements could represent a limiting factor for the implementation of the planning solution. Therefore, the principle was adopted that the space should be planned as flexibly as possible, which opens up the possibility for rational use of land. In this area, it is planned to preserve the existing greenery to the greatest possible extent with the addition of new planting, given that the percentage of green areas within this designated use amounts to 40-50%, so that most of the traffic and parking take place underground on one to two levels, while the main traffic network with secondary service roads is planned above ground.

In this area, it is necessary to locate the residential-commercial buildings of an exclusive character, which, for technological, traffic and environmental reasons, are to be located so as to achieve a high level of spatial design with appropriate service and manoeuvring areas, as well as parking areas to support the planned structures.

The subject site represents an integral part of the future development of urban Podgorica. All zones are interconnected and oriented towards strong transport networks in order to create an overall complementarity of functions that collectively meet the needs of the city and the region.

The area has good connectivity to the traffic access road, which is of particular importance given the intensity of movement of people and goods. The subject site is easily and quickly accessible from Podgorica by public transport. On the other hand, sufficient proximity between sports and recreation facilities and residential areas has been achieved, thereby improving spatial integration so that these resources can be utilized to the fullest extent.

In one part of the planning unit, it is necessary to locate hospitality facilities, various forms of commercial and service centres, hotels, as well as complementary facilities. It is also planned to locate educational, cultural, schooling, healthcare facilities, etc.

The majority of the planning area is designated for protective green areas, park areas, and

sports and recreational facilities. Within this unit, the plan provides for the Main Stadium of the Football Association of Montenegro, the existing auxiliary stadiums, as well as their further development.

This spatial development concept, as the basis for further planning elaboration, should be based on the harmonized needs of the city, as well as those of the immediate users. The area should be treated as a single spatial and functional unit, in order to integrate all facilities and avoid duplication of planned capacities.

The spatial units of the plan are divided according to their designated uses.

- Designated use: water surface – (water source);
- Mixed use - multi-family housing with complementary functions (collective residential and commercial buildings), service-production facilities, administration, market, hospitality facilities, various types of shopping centres, supermarkets, hotels, cultural facilities, office and administrative buildings, business centres, multiplex centres and educational facilities (kindergartens, primary school, secondary school), healthcare facilities (health centre - clinic), etc.;
- Designated use: single-family housing (living in family houses of the villa type);
- Designated use: sports and recreational zone (auxiliary sports fields, the main stadium of the Football Association of Montenegro, existing Špiro Mugoša sports airfield);
- Designated use: public green areas (a park with fitness trail, bicycle and pedestrian paths);
- Designated use. Special-purpose green areas (protective greenery);

The subject plots fall under the designated use category - "Mixed use - multi-family housing with complementary functions (collective residential and commercial buildings) and service and production facilities, administration, market, hospitality facilities, various types of shopping centres, supermarkets, hotels, cultural facilities, office and administrative buildings, business centres, multiplex centres, etc.;



View of the part of the plan containing the subject site – Map No. 9 – „Organization and Distribution of Facilities“

Multi-family housing with complementary functions is planned along the traffic corridor of Street 7-7 with clearly defined subdivision. Construction is planned on undeveloped areas in the form of free-standing buildings, in compliance with construction, regulation and grading rules.

Parking is to be provided on the plot in accordance with the applicable traffic regulations for movement and stationary use, ensuring a sufficient number of parking spaces. In addition, within the zone designated as the city's gateway, along with other facilities, these facilities are also planned, with parking to be provided in the underground garage and partially on the plot in accordance with the applicable rules and conditions given in the traffic section. Within this use category, along the Podgorica-Tuzi corridor, the placement of service and light production facilities is planned. These are free-standing - commercial facilities, warehouses, stockyards, which do not significantly interfere with the predominant use, utility service facilities that serve the needs of the area's residents; the planned facilities are accessed from the service road.

Administrative and commercial facilities are located within the central zone of the newly developed boulevard. High-rise buildings are planned with gradually decreasing heights, giving this area the importance of the city's gateway. Within the zone, it is planned to accommodate facilities of various types, representative buildings, as well as business centres with administrative and commercial capacities. Given that these facilities are often associated with a high frequency of visitors, a sufficient number of parking spaces is provided, which are accessed via service roads, separated from the main road by a green buffer strip.

Access to the underground parking garage is also planned to ensure unobstructed movement and ground-level design. Parking spaces are provided within the plots, as the area is divided into separate plots. In addition to the rules of subdivision and regulation, traffic rules for movement and stationary use will apply, ensuring a sufficient number of parking spaces.

3.2. Existing spatial conditions

The subject site includes three urban plots (UP 40a, UP 41 and UP 42), with a total area of 18,673 m², and is located on the south-eastern edge of Podgorica, in a zone that spatially connects to the Stari aerodrom area. It is positioned outside the core of the densely built urban fabric, in an area that is well connected in terms of infrastructure, and which represents part of a broader urban transformation belt.

On a macro level, the site is bordered to the east by a strip of protective forest planned for transformation into a city park, while to the south lie the open areas of Čemovsko polje with predominantly agricultural and landscape use. To the west and northwest lies the Stari aerodrom residential neighbourhood, which is largely developed with individual housing, while to the north lies the training camp complex of the Football Association of Montenegro.

On a micro level, the site is in direct contact with the new infrastructure corridor – Veljko Vlahović Boulevard, the opening of which significantly improves the accessibility of this part of the city. The traffic network within the site itself has not yet been established, but the plan provides for access roads that will connect it to the existing network.

The terrain is predominantly flat, without pronounced physical obstacles or level differences, with low and medium-height vegetation. The vegetation is not protected, but its potential preservation and integration into future landscape design may be considered within the design approach.

The site is set apart from the traditionally designed urban context, which opens up the possibility for innovative urban and architectural solutions, with strict compliance with infrastructure conditions, integration with the natural environment, and the broader spatial identity of the developing zone.



Orthophoto view of the site

3.3. Familiarization with local natural conditions

For a better understanding of the natural characteristics, below is information on the type and quality of soil, climatic conditions, landscape context, and the like.

In morphological terms, it is a flat terrain with a minimal slope (less than 50). The category of bound and semi-bound lithological structures includes: shales, clays, marls, sandstones, etc. These terrains have good bearing capacity. The pedological characteristics of the Zeta Plain and the Čemovsko polje are as follows: geologically, the plain is composed of alluvial-diluvial deposits, most often brown soils on gravel and conglomerate.

The territory covered by the subject DUP is mostly undeveloped land except for the existing Elderly Care facility.

The site itself contains no tall vegetation, while nearby there is a segment of a wind-protected green corridor that was planted during the 1950s. The corridor is afforested with Aleppo pine seedlings with a minor presence of cypress. Due to the unfavourable environmental conditions of the poor skeletal soil and the intense summer heat, the trees have shown limited growth and do not give the impression of a strong 60-year-old plantings. The decorative-aesthetic and health value of the trees is moderate, but with the application of the necessary measures, these plantings may form the basis of a future park area near the subject site. The greenery of the subject complex forms a "link between the green areas of the urban city fabric and the open landscapes outside the city. Together with the neighbouring block greenery of the "Konik – Stari aerodrom" neighbourhood, the subject area constitutes a high-quality unit of the city's forest stock.

From the aspect of natural conditions, this area provides a number of advantages for construction and urbanization: flat terrain, favourable groundwater level, and good soil stability are characteristics that favour construction.

According to the Köppen climate classification, Podgorica lies within the Mediterranean climate zone (type Csa), characterised by hot, dry summers with temperatures exceeding 40 °C and mild, humid winters, often accompanied by strong winds.

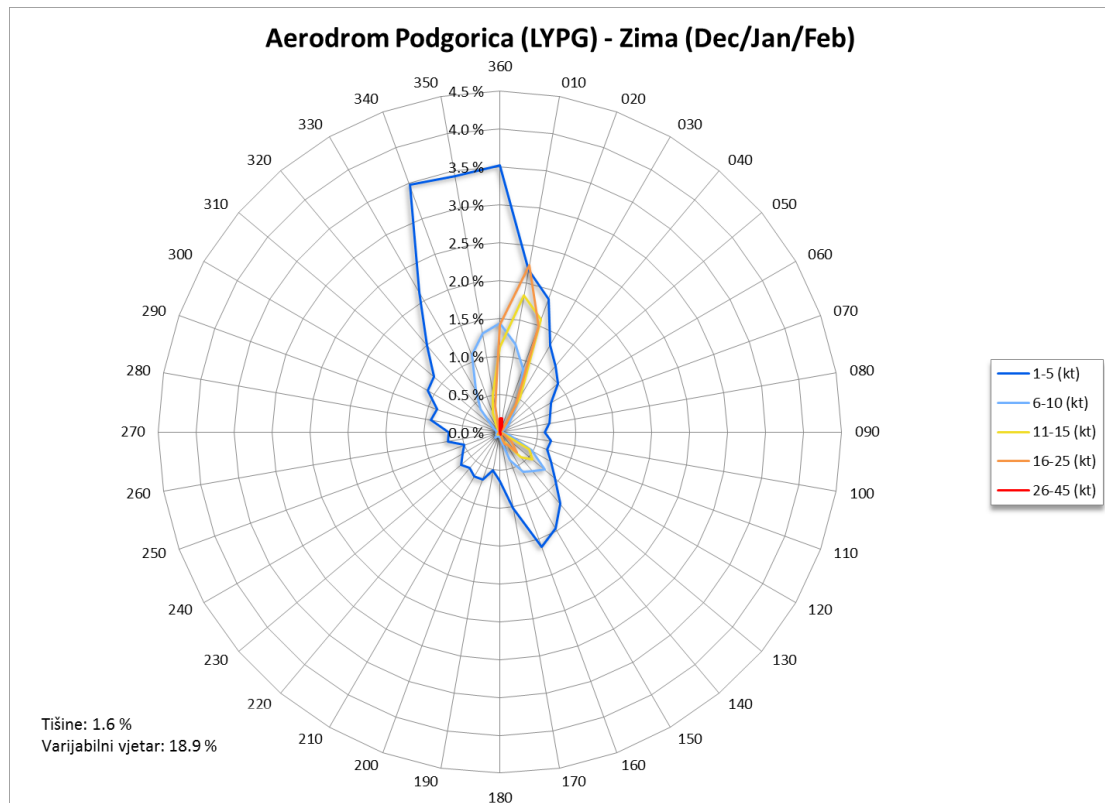
The city is among the sunniest in the region, with an average of 2,600 sunshine hours per year, making it well-suited for the use of solar energy and the application of passive solar design principles.

Precipitation is unevenly distributed throughout the year – November sees the highest rainfall (14.6% of the annual average), while July has the lowest (2.3%), indicating pronounced seasonal droughts in summer and a risk of short, intense rainfall events during the colder months.

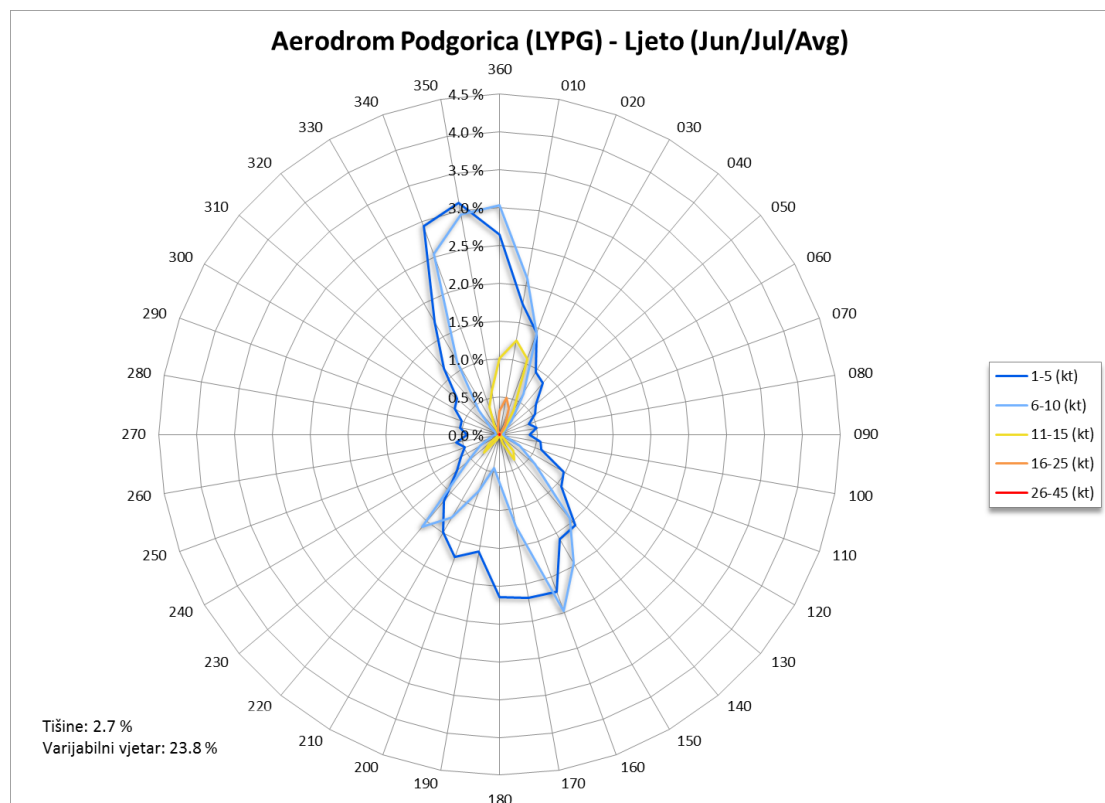
The prevailing winds are from the north and south, with an average speed of 2.8 to 3.1 m/s. Winters are mild, the number of frost days is decreasing, and the vegetation period is lengthening. The source of meteorological data for Podgorica:

<https://www.meteo.co.me/page.php?id=41>

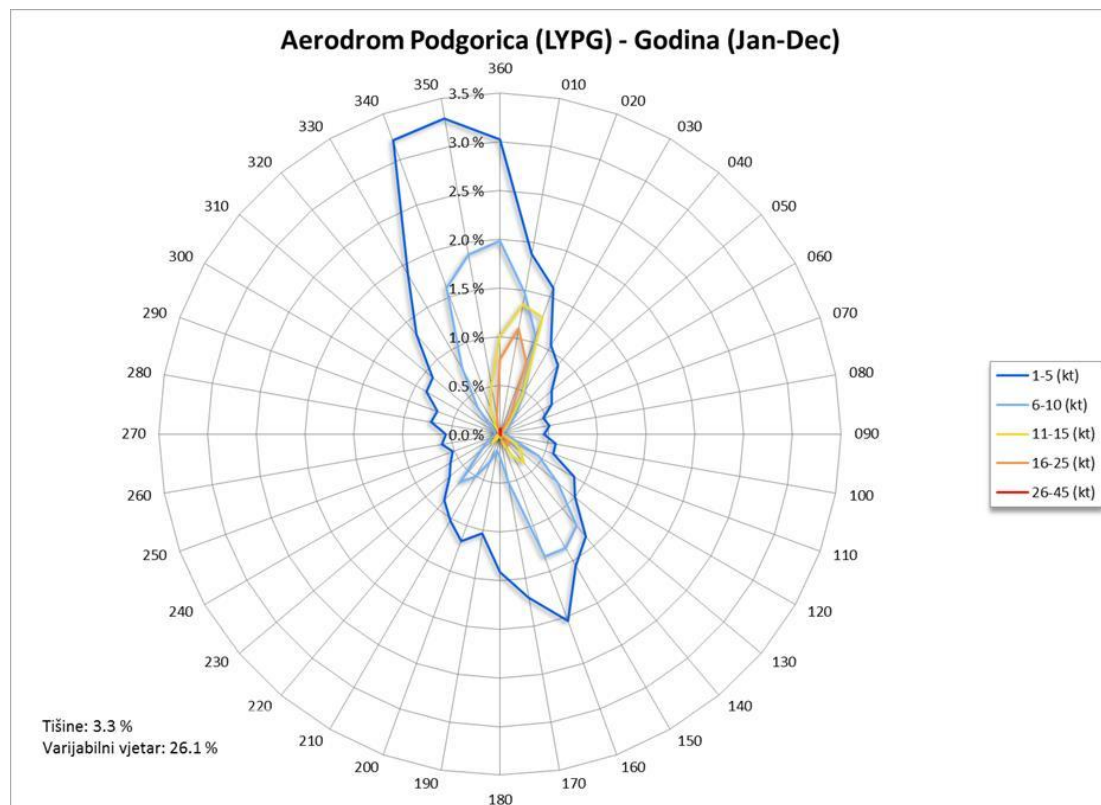
The following wind roses represent data from the Podgorica Airport location, which lies in the immediate vicinity and shares nearly identical microclimatic characteristics with the project site.



Winter Wind Rose



Summer Wind Rose



Annual Wind Rose

In recent decades, Podgorica has experienced a statistically significant increase in average temperatures and an extension of heat periods, as confirmed by all key climate indices. Since 1981, each decade has been warmer than the previous one, with the last one (2011–2020) recording an anomaly of as much as $+2.14^{\circ}\text{C}$ compared to the climatological baseline of 1961–1990. The number of tropical days ($\geq 30^{\circ}\text{C}$) has been increasing by $+0.51$ days per year, while the number of tropical nights (temperature above 20°C) has been rising by almost 0.5 nights per year. There has also been an increase in the number and duration of heat waves, which seriously affect the health and comfort of urban communities.

In projections by the end of the century, a further rise in temperatures is expected, especially during the summer period, with maximum increases ranging from $+2.5^{\circ}\text{C}$ to $+3^{\circ}$. Summer remains the most affected season, with increasingly frequent droughts, an increase in the number of consecutive dry days and a decrease in seasonal precipitation of up to 20%. The risk of fires and torrential rainfall is also increasing, as well as the likelihood of infrastructure overload.

4. SOCIO-ECONOMIC ANALYSIS

Housing in Podgorica has become one of the key socio-economic issues, due to the increasingly pronounced gap between the needs of the population and the real possibilities in the real estate market. The city with almost 180 thousand inhabitants, according to the 2023 Census, accounts for more than a quarter of the total population of Montenegro. It is particularly significant that almost half of the population consists of people under the age of 35, which makes this age group strategic when it comes to shaping public housing policies.

There are about 63,900 households in Podgorica, with an average size of 2.8 members. The dominant structure consists of families with 3 to 5 members, while single-person and two-person households each account for 24%, and households with six or more members for only 4%.

Although formally around two-thirds of households are owner-occupied, it is concerning that more than a quarter of households, specifically, 27.5% (17,542), do not have their housing needs resolved, which includes tenants and individuals living with relatives or friends. This figure indicates a significant presence of housing insecurity and unmet housing needs.

When viewed comparatively, according to the 2011 Census, 11,663 households in Podgorica were living in insecure housing conditions (20.5% of all households), whereas by 2023 this number had risen to 17,542 households, representing a 50.4% increase in absolute terms and a rise in share from 20.5% to 27.5%.

At the same time, the number of households in owner or co-owner status has remained virtually unchanged – from 41,919 in 2011 (73.7% of all households) to 44,088 in 2023 (69.0%). This indicates that the majority of the net increase of 7,045 new households over the past decade has effectively come entirely from categories of insecure housing.

Of particular concern is the sharp increase in the number of households living with relatives, which rose from 4,613 in 2011 to 8,575 in 2023. This trend highlights the growing difficulty for young people to achieve independent living and points to a lack of affordable options for first-time housing.

In the context of housing affordability, the situation is further exacerbated by the rising cost of real estate. According to data from the second quarter of 2025, the average price per square metre for newly built flats in Podgorica was €2,108. By contrast, the average net monthly salary in Montenegro in July 2025 was €1,014. This ratio means that purchasing a 50 m² flat requires 8.6 average annual salaries, making market-based housing financially unattainable for most citizens, particularly young people and families with children. At the same time, construction activity does not match actual housing demand — in the first quarter of 2025, building permits were issued for only 117 flats across the entire country, totalling 7,183 m² of residential space. This indicates a likely further increase in prices due to limited supply. A partial cause of the price increase lies in the influx of foreign capital, particularly through purchases by non-residents, the entry of foreign investors into the property market, and programmes such as economic citizenship and digital nomad visas. The accelerated demand from buyers originating in wealthier economies is placing upward pressure on prices, especially in urban centres such as Podgorica, further distancing housing affordability from the real income levels of the local population.

Data on the risk of poverty further reinforce the need for stronger public sector engagement in the area of housing. According to the 2024EU-SILC survey, as much as 20% of the population is below the risk of poverty threshold. In this context, families with children are

particularly vulnerable, with the poverty risk rate for single parents being 34%, and 29,1 % for families with three or more children. When the poverty risk is viewed by age structure, the most vulnerable are young people under 18 and young adults aged 18 to 24. These data confirm that precisely those categories of the population that are most essential for the demographic and economic sustainability of the city are experiencing the greatest pressure from rising housing costs.

As a result, the average age of young people leaving the parental home in Montenegro is as high as 33.3 years, which is among the highest values in Europe. Furthermore, the findings of the **Youth Study Montenegro 2024** (CCE & Friedrich-Ebert-Stiftung) research are not surprising, as they show that 45.8% of young people (aged 14–29) in Montenegro have at least a moderate desire to emigrate (for a period longer than six months). Young people in Montenegro most often want to leave for economic reasons. The primary reason is the pursuit of stability, higher salaries and better working conditions. Emigration is also motivated by dissatisfaction with the quality of education, healthcare and public services, as well as limited opportunities for professional development.

In a broader sense, this analysis shows that the housing market in Podgorica is unable to meet the needs of the most vulnerable groups: young people, families with children, single parents and persons with low incomes.

5. CONTEXT OF MODERN RESIDENTIAL ARCHITECTURE IN PODGORICA

Contemporary residential architecture in Podgorica has developed predominantly under the influence of market factors, with an emphasis on quantity and low construction costs. During the period of intensive urbanization, the focus of investors and developers was primarily aimed at maximizing spatial efficiency, while the aspects of functionality, housing quality, spatial flexibility and contextual integration were often pushed into the background.

The majority of residential buildings are characterized by typological uniformity, modest spatial quality and neglect of common areas. Architectural design largely relies on the repetition of standardized solutions, without creating a long-lasting visual and environmental identity in a positive sense. The development of the ground level is reduced to the function of creating the required number of parking spaces.

Facades are often the result of a technical minimum, without any accompanying elaboration in terms of details, materialization and composition. The relationships between private, semi-public and public space are poorly defined, and common areas generally remain limited to circulation cores and often excessively long corridors. In most cases, the projects lack a sense of proportion, orientation, lighting and spatial dynamics.

Despite the mentioned limitations, there are also examples of good practice. However, these examples still do not constitute a recognizable standard, and most often refer to structures of smaller scale.

This competition aims to establish a new frame of reference in the field of residential architecture in Podgorica. The solutions are expected to provide more than a mere response to planning parameters, and, through thoughtful spatial organization, functionality, design and rationality, to demonstrate that it is possible to achieve high-quality, affordable and socially responsible architecture even in conditions of a limited budget.



View of the newly built boulevard (the subject site at the opposite end)

6. COMPETITION BRIEF

6.1. General guidelines

The competition is announced with the aim of obtaining a contemporary urban and architectural solution for a residential complex that will respond to the growing need for affordable and high-quality housing in Podgorica. The site includes three connected urban plots with a total area of approximately 18,600 m².

The solutions are expected to provide a comprehensive response to the challenges of spatial organization, apartment typology, design of building volumes and site design, in accordance with the principles of functionality, sustainability and social responsibility.

The urban design solution must provide a clear concept of the organization of the complex that includes rational use of space, clear subdivision and organization of buildings, as well as a functional traffic and pedestrian network. It is necessary to provide for a logical disposition of buildings, while respecting the prescribed construction lines, number of floors and other planning parameters. The space should be structured to allow for phased construction and flexible management throughout the implementation process.

The architectural expression should be adapted to contemporary needs, in a rational manner, while respecting the local context, climatic and landscape conditions. The materiality, the rhythm of openings, the organization of entrances and the treatment of the ground floor must contribute to the activation of the space and a sense of safety for users.

All conceptual designs must comply with the applicable **Rulebook on the Conditions for the Preparation of Technical Documentation for a Residential Building ("Official Gazette of Montenegro"**, Nos. 113/23 and 12/24), which prescribes the minimum standards for the design of apartments, common and technical areas, circulation, installations, accessibility and technical systems. The Rulebook forms an integral part of the competition documentation.

6.2. Urban-technical conditions

The designated urban plots UP 40a, UP 41, and UP 42 are located within the Detailed Urban Plan (DUP) "Konik – Stari Aerodrom – Phase III" in Podgorica, in an area defined as a mixed-use zone. Within this zone, the construction of multi-family residential buildings with integrated commercial or service functions is planned:

- The ground floor of the buildings is planned for business and commercial uses, occupying approximately 30% of the total building area;
- The position and dimensions of the planned buildings are not mandatory, but will be determined following detailed development of the project documentation. The defined construction lines of these buildings are binding and will determine their position and distance from the railway tracks, neighbouring structures, roads, and public spaces.
- The construction of basement and semi-basement levels beneath all buildings is permitted, but not mandatory. Floors located below ground level are considered basement and semi-basement spaces and are not included in the calculation of the allowable gross floor area of the building. If garage spaces are planned in the basement or semi-basement levels, the dimensions of the underground level may exceed the dimensions of the building, provided that its construction does not endanger neighbouring buildings or plots. If the roof of the underground garage is greened and landscaped, its dimensions are not included in the calculation of the plot coverage ratio, but is considered a landscaped green area.
- The construction line below ground level, in the case of space designated for garages,

may be up to 1.5 m from the boundary of the urban plot.

- In the design of the buildings, contemporary materials and artistic expressions should be used. In terms of design, new buildings should be integrated into the environment through the use of high-quality materials and modern architectural solutions.
- The roofs of the buildings are pitched or flat, with roofing materials appropriate to the slope.
- The gross floor areas indicated in the tables represent maximum values.
- The plan provides for phased implementation, according to the needs and capabilities of potential investors. The implementation of the planned facilities will follow the development of the entire zone up to the maximum capacities defined by the urban planning parameters of this plan.
- This plan allows for land consolidation - the merging of one or more plots.

No. UP	Area of UP	planned building footprint	planned GFA	max. number of floors	No. of housing units	No. of businesses premises	Population	No. of employees	designated use
UP40a	7189	2157	9705	5	85	36	306	58	residential-commercial building
UP41	5778	1733	7800	5	68	29	246	47	residential-commercial building
UP42	5706	1712	7703	5	67	29	243	46	residential-commercial building

Tabular excerpt from the DUP "Konik – Stari aerodrom – Phase III" for the three urban plots that constitute the subject site

Commercial facilities:

- Commercial facilities include the following activities: retail, crafts, business, hospitality, and services, with all subdivisions. Activities that threaten the environment through noise and pollution are not permitted.
- Multi-family residential buildings with complementary functions are free-standing structures on the plot.
- The height of the raised ground floor may be a maximum of 6m, and the height of the upper floors may be a maximum of 4m.
- The elevation of the ground floor of buildings designated for commercial activities must be no more than 0.2m above the level of the access road, in order to enable easy accessibility for pedestrians.
- Building elements at the ground floor level of buildings may extend beyond the building line (measured from the main dimensions of the building to the horizontal projection of the extension), namely:
 - shopfronts - 0.3m, along the full height
 - cantilevered canopies or canopies with a massive steel structures at ground floor level - a maximum of 4m beyond the building line, and only in the entrance zone, with a minimum height of 4m
 - cantilevered signs - up to 1 m, at a height above 4 m
 - the listed construction elements must not extend beyond the boundary of the urban plot (they must not encroach upon the public space)

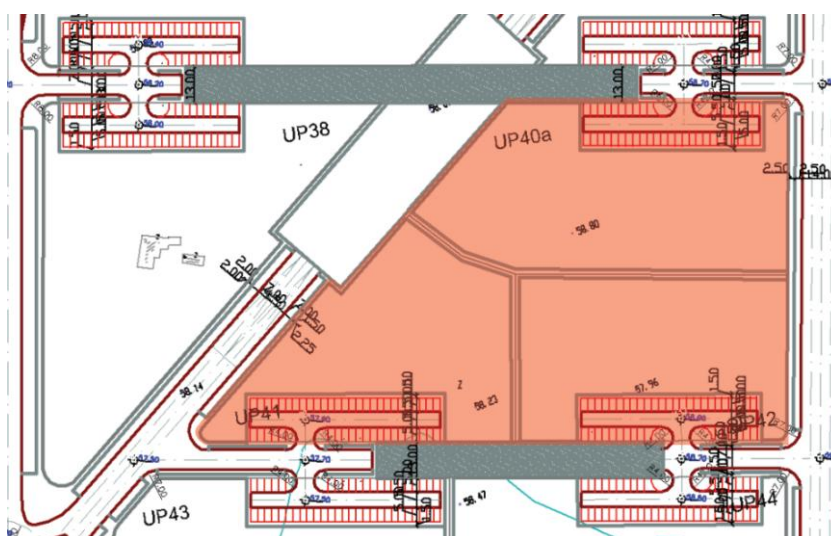
Parking

Parking must be planned in accordance with the applicable urban-technical conditions and the applicable Rulebook on the Conditions for the Preparation of Technical Documentation for a Residential Building ("Official Gazette of Montenegro", Nos. 113/23 and 12/24). All parking needs are resolved within the urban plots, whereby a rational combination of open parking spaces and underground parking garages is recommended.

For collective housing, it is necessary to provide at least:

- 1.1 parking space per apartment
- additional parking spaces in accordance with the planned floor area of commercial premises (standard: 1 parking space per every 50 m² net),
- specially designated and accessible parking spaces for persons with disabilities, at least 5% of the total number of parking spaces

Open parking areas are designed in such a manner as not to compromise the quality of public and semi-public space, but rather to be functionally integrated and landscaped wherever possible. Linear greenery, partial shading, and the separation of pedestrian and vehicular traffic are recommended to reduce the visual and functional impact of parking zones.



Traffic solution from the planning document

Underground garages are recommended as the dominant form of vehicle accommodation. The garages should be designed in accordance with the following technical standards:

- width of the straight ramp is min. 3.75 m for one-way and 6.50 m for two-way straight ramps;
- width of the circular ramp is min. 4.70 m for one-way and 8.10 m for two-way circular ramps;
- width of the drive aisle is min. 5.5 m, and the minimum dimensions of a parking space are 2,5 x 5,0 m
- clear height of the garage is min. 2.3 m

- longitudinal slope of the ramps, depending on the size of the garage, is max. 12% for open and 15% for covered ramps;

Within the traffic and mobility concept, it is recommended to consider the integration of a car-sharing system, rent-a-bike stations, and other forms of sustainable mobility. A sufficient number of covered and secure bicycle parking spaces should be provided, along with charging points for electric bicycles and scooters.

The plan recommends that access to garages be planned from recessed sections of the roads.

6.3. Dwelling typologies

The dwelling typologies defined in the table are the result of an analysis of the demographic and social characteristics of households in Podgorica, with the aim of addressing the needs of various user groups – from young singles and couples, to families with children, older adults, and single parents.

The proposed structure reflects the principles of social sensitivity, functional flexibility, and efficient use of space.

To preserve the flexibility and adaptability of the design, a deviation of $\pm 5\%$ in the number of units per typology is permitted, relative to the planned values shown in the table.

All changes to the proposed structure must be clearly justified within the competition documentation and must comply with urban-technical requirements and planned capacity limits.

Preference will be given to proposals that offer greater flexibility in layout and allow for easy reconfiguration of dwelling units.

Dwelling type	Minimum net area (m ²)	Number of apartments	Permissible deviation (%)
Studio apartment	26.0	9	$\pm 5\%$ of the planned number of dwellings
One-bedroom	46.5	24	$\pm 5\%$ of the planned number of dwellings
One and a half bedroom	60.6	31	$\pm 5\%$ of the planned number of dwellings
Two-bedroom	69.8	71	$\pm 5\%$ of the planned number of dwellings
Two and a half bedroom	79.3	40	$\pm 5\%$ of the planned number of dwellings
Three-bedroom	89.4	45	$\pm 5\%$ of the planned number of dwellings
TOTAL		220	

Participants are encouraged to propose a diverse typological mix of dwellings that respond to various social groups and life stages of users. In addition to the typologies already listed in the table, the following may also be considered:

- Dwellings for older adults (50+ generation);
- Compact flats for young people and starter households;
- Family units for single parents;
- Multigenerational housing (e.g. “three generations under one roof”);
- Flexible housing models that allow for spatial reconfiguration over time.

This approach supports greater social diversity and inclusivity in housing.

The minimum internal floor areas and layout of dwelling must be designed in accordance with the applicable Rulebook on the Conditions for the Preparation of Technical Documentation for a Residential Building ("Official Gazette of Montenegro", Nos. 113/23 and 12/24).

In accordance with the Regulation on Detailed Conditions and Manner of Adapting Buildings for Access and Movement of Persons with Reduced Mobility and Persons with Disabilities ("Official Gazette of Montenegro", No. 41/25), it is necessary to provide for one easily adaptable apartment for every ten apartments.

6.4. Common facilities

Common areas play a key role in fostering mutual interaction, a sense of community, safety, and the long-term sustainability of the residential community.

Competition participants should provide for the following types of common areas and zones:

Internal common areas

Shared internal spaces form the backbone of building functionality and play an important role in fostering a sense of community and enhancing the overall quality of living. Design proposals should include rationally dimensioned, easily accessible, and multifunctional areas that allow for flexible use and long-term sustainability.

It is recommended that the ground floors, which are not intended for residential use, accommodate a multi-purpose space for residents' gatherings and activities – such as a common room that can be used for meetings, workshops, educational programmes, recreation, or informal social interaction.

The ground floor should be conceived as an active base that connects the new residential environment with its surroundings.

A floor-to-ceiling height of up to 4.5 metres is recommended (with a maximum of 6 metres allowed by planning regulations), enabling the integration of flexible commercial and

communal functions. A modular layout is encouraged, allowing the subdivision of the space into smaller or larger units that can be adapted or combined over time, in response to users' evolving needs.

Designs are also encouraged to provide spaces for working from home, either within flats or shared areas – such as study nooks, extended entry zones, dedicated niches, or even small co-working units on the ground floor.

Additional spaces for recreation, sport, and relaxation – such as fitness rooms, yoga/meditation areas, saunas, or hobby rooms – may be proposed, either on the ground floor or upper levels, depending on the overall layout of the block.

In addition to communal spaces, provision of commercial functions is expected in line with urban and technical conditions. These may include retail, craftsmanship, office space, hospitality, and service-related activities, across all relevant subcategories. Activities that generate excessive noise or pollution are not permitted.

Each building or section (lamella) must include storage areas for bicycles and pushchairs, located near the entrances and connected to external access routes.

Shared technical spaces include areas for service shafts and installations, which must be accessible without compromising residents' privacy, as well as rooms for electrical systems, meters, telecommunications cabinets, and other utility infrastructure.

Installation systems should be designed to allow for easy maintenance and servicing.

On upper floors, designers may consider introducing small shared areas, such as micro-zones for drying laundry, storage rooms, or multi-purpose niches in corridors – particularly valuable in social housing schemes for improving day-to-day functionality.

All circulation areas (entrances, hallways, staircases, lifts) must comply with accessibility standards, offer adequate lighting, and ensure clear orientation.

Each lamella should include a designated space for a building manager, located in the basement or ground floor, equipped with sanitary facilities and adequate working conditions. Separate rooms must also be provided for cleaning and maintenance supplies.

Designers are free to propose additional types of shared spaces beyond those listed, depending on the concept and user needs.

The design of all communal areas must comply with the Rulebook on Conditions for the Preparation of Technical Documentation for Residential Buildings (Official Gazette of Montenegro, Nos. 113/23 and 12/24).

Open areas

Within the project site, the open areas of the designated urban plots must be purposefully designed and functionally organised, in accordance with the applicable planning document. According to the competition guidelines, the minimum greenery coverage must be **45%** of the total area of the urban plot, while the remaining open areas should be allocated for residential terraces, pedestrian paths, and traffic-related service zones, including access roads, parking areas, and technical corridors. The roof surface of the garage may be considered as green space if constructed with a substrate depth of at least 1 metre.

Green areas may be designed as intensively landscaped park areas, courtyards, linear plantings along paths and streets, lawns, hedges or urban agriculture zones. It is desirable that the vegetation be local and adapted to the climatic conditions, with low maintenance requirements and a long lifespan. It is recommended to preserve and integrate the existing vegetation, where permitted by the design solution, which can further contribute to the identity and ecological value of the space.

Pedestrian areas should enable unobstructed and safe movement of all users, including persons with reduced mobility, and be logically connected to building entrances, common areas and functional zones within the complex. Service areas and traffic routes within the complex should be designed in accordance with accessibility standards for emergency and utility vehicles, whereby their functional placement on the perimeter of the complex is preferred, in order to free the interior for pedestrian and residential areas.

The design of open areas must contribute to the quality of everyday life of residents, enable diverse modes of use and establish a balance between private, semi-public and public environments. The emphasis is placed on green, accessible and active areas that, in addition to their aesthetic and ecological functions, also serve as spaces for meeting, play, leisure and communal activities.

6.5. Energy efficiency and sustainability

Podgorica is experiencing a statistically significant increase in temperatures, with the “expansion” of summer into the spring and autumn months. This results in longer periods of overheating and heightened summer heat stress, which should be actively mitigated through passive design measures (orientation, shading, ventilation, insulation).

The number of summer days ($\geq 25^{\circ}\text{C}$) and tropical days ($\geq 30^{\circ}\text{C}$) is increasing, and projections indicate further growth — by mid-century, an additional 20 to 25 tropical days per year are expected in Podgorica (RCP4.5 scenario), along with more frequent and prolonged heatwaves (+36 to +48 days in the period 2041–2070). This confirms the need for shading elements on façades, dual-aspect flats where possible, well-ventilated corridors, night-time cooling strategies, and light, reflective roofs and façades.

Additionally, the number of tropical nights ($T_{min} > 20\text{ }^{\circ}\text{C}$) is rising by approximately +0.47 nights per year, making nocturnal cooling more difficult and further reinforcing the need for layouts that allow natural cross-ventilation.

Changes in rainfall patterns show longer dry periods and more frequent extreme rain events, which calls for the adoption of “sponge city” principles — including green roofs (with the possibility of integrating solar panels), partial green façades, permeable surfaces, retention zones, and rain gardens. At the same time, increasing drought conditions require drought-tolerant landscape design, use of local low-maintenance plant species, and rational irrigation strategies (e.g. recycled rainwater).

Local climate conditions favour building orientations that maximise winter sun exposure and control summer solar gains, using horizontal shading on southern façades and vertical shading on eastern and western sides. Entrances, large openings, and balconies should be positioned to take advantage of favourable airflow and avoid strong northern winds in winter.

The heating season is relatively short (approx. 142 days), and the number of frost days is decreasing, confirming that priority should be given to cooling performance and summer comfort (passive protection, ventilation, evapotranspiration from vegetation).

At the block typology level, the application of design strategies is expected that enable cross-ventilation, active ground floors with deep arcades and pergolas, and semi-public courtyards featuring a high proportion of green-covered land and predominantly permeable surfaces. Shaded children's playgrounds and outdoor seating areas should be included, as well as an appropriate approach to rooftop design. This set of measures responds to observed climate trends: hotter and longer summers with more frequent tropical nights, drier summer seasons, and more intense but short-lived rainfall events.

Participants are expected to provide a clear explanation of how energy efficiency principles have been applied, demonstrating how their proposal reduces energy consumption and enhances overall user comfort. Façade wall thicknesses with planned material layers must be realistically represented in the graphic documentation.

Participants are also encouraged to explore and integrate solutions involving renewable energy sources, including:

- Well and ground source heat pump systems (use of underground water);
- Surface heating and cooling systems, such as concrete core activation;
- Partial underfloor heating, natural ventilation;
- Solar photovoltaic systems on flat roofs for shared building needs.

Special emphasis is placed on block permeability and ventilation, the avoidance of enclosed urban "pockets", and the reduction of the urban heat island effect.

6.6. Guidelines for the Selection of a Structural System

Participants are invited to propose a structural system that ensures durability, modularity, and construction efficiency. The use of standardised and industrially optimised building systems is encouraged, such as monolithic reinforced concrete, or a hybrid system combining masonry construction with a reinforced concrete core, which allow for flexibility in the layout of flats and vertical circulation cores.

It should be noted that prefabricated construction systems, although commonly used in similar projects elsewhere, are currently not supported by local capacity in Montenegro. Likewise, there is no significant experience with large-scale timber structures, and therefore the use of such systems is not recommended for this project.

From a macro-seismic perspective, the territory of Podgorica is located within a high seismic activity zone. The 1979 earthquake, as well as previous events, have shown that earthquakes of intensity 9° on the MCS scale or higher can occur within the city area.

According to available studies and analyses, the following seismic parameters are characteristic for the site:

- Soil bearing capacity: 120–170 kN/m²
- Seismic coefficient (Ks): 0.079
- Dynamic coefficient (Kd): 0.47–1.0
- Maximum ground acceleration (Q max): 0.288
- Expected intensity: 9 degrees on the MCS (Medvedev–Sponheuer–Karnik) scale

6.7. Architectural Expression and Materiality

Architectural design should contribute to the creation of a distinctive yet unobtrusive identity, respecting the local context, scale, and landscape characteristics of the site. It is expected that composition, proportions, materials, and the rhythm of openings will be used thoughtfully as elements of spatial cohesion and a sense of home, while avoiding formal monotony and generic appearance.

The proposed material strategy should support the durability, resilience, and sustainability of the buildings, with an emphasis on ease of maintenance and visual coherence across the whole development. The use of ventilated façades, façade systems with high thermal performance, and finishing materials resistant to external conditions is encouraged, provided they are aligned with the projected budget.

6.8. Guidelines regarding the estimated construction cost

Given the objective of the project, competition participants are expected to propose solutions that are feasible within the limited budget.

The target investment value of the construction of residential buildings in this project amounts to up to **€1,290/m² of net usable residential area**, excluding VAT. This value includes all works on the above-ground part of the building — preparatory, construction, craft, installation and finishing works, as well as elements of basic equipment.

Additionally, the price should include:

- technical infrastructure of the building (electricity, water, sewage, heating),
- basic interior and exterior joinery,
- finishing of facade and roof surfaces in accordance with energy standards.

The price does not include underground floors and landscaping, which will be considered separately and proportionally assessed in accordance with the designed areas. Participants are required to present in their conceptual design an estimate of the investment value for each segment separately (apartments, underground garages, exterior landscaping), as a basis for evaluating cost-efficiency.

The calculation must be based on the defined net usable residential area (excluding circulation areas, technical rooms and common areas), according to a calculation methodology that is compatible with applicable technical standards.

Part of the competition material is a table that participants are required to fill in with relevant data from their design solutions.

6.9. Conditions for conducting the competition

The competition is announced in accordance with the Rulebook on the Manner and Procedure for Announcing and Conducting a Public Competition for a Conceptual Architectural Design ("Official Gazette of Montenegro", No. 19/18).

By submitting an entry, each participant accepts the provisions of this competition.

6.10. Regulations and recommendations for design

In the design process, it is necessary to comply with the provisions of the following regulations:

- Law on Construction of Structures ("Official Gazette of Montenegro", Nos. 19/25, 92/25);
- Rulebook on Detailed Conditions and the Manner of Adapting Facilities for Access and Movement of Persons with Reduced Mobility and Persons with Disabilities ("Official Gazette of Montenegro", No. 41/25);
- Rulebook on the Conditions for the Preparation of Technical Documentation for a Residential Building ("Official Gazette of Montenegro", Nos. 113/23 and 12/24)

In the design process, it is recommended to use the *Manual for Planning Public Spaces in Montenegro* (Ministry of Spatial Planning, Urbanism and State Property

<https://www.gov.me/dokumenta/480a2173-ff9e-4d3f-ad0e-1ce1320f09bd>), as well as the Manual for Planning Residential Neighbourhoods in Montenegro. ([*Manual for Planning Residential Neighbourhoods in Montenegro*](#))