

CITY GARDEN

The concept masterplan

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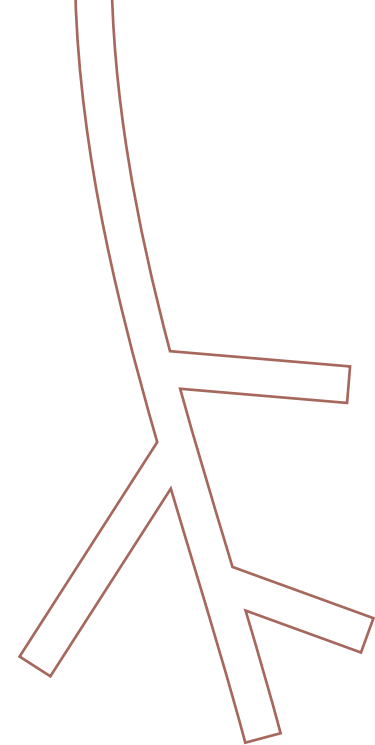
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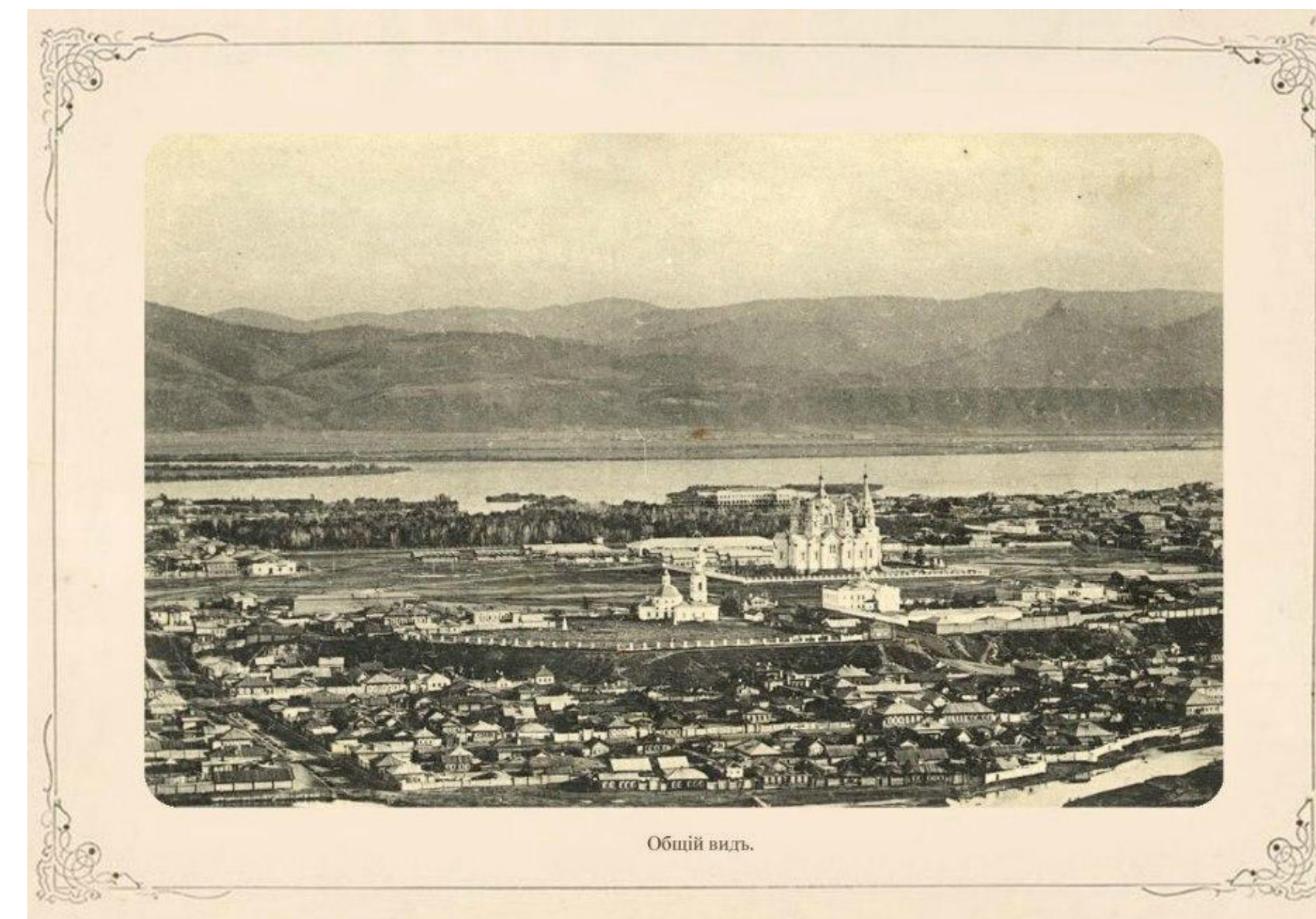
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INTRODUCTION



The city garden plays a key role in the city's green system. It was the natural heart of Krasnoyarsk in both the 19th century, when this system was not yet in the plans, and in the 20th century, when Gorky Park became associated with a walk-holiday, a walk-entertainment. The significance of the City Garden in the 21st century has not yet been articulated. But we have already chosen precise and powerful words for him.





1.

COMPREHENSIVE SUBSTANTIATION OF THE CONCEPT OF TERRITORY DEVELOPMENT

GREEN INFRASTRUCTURE OF THE CITY

1.1. Comprehensive assessment of outdoor recreational, urban planning, ecological and other preconditions determining potential opportunities and restrictions of development of the competition site.

Located at the crossing of the West Siberian Plain, the Central Siberian Plateau and the Sayan Mountains, Krasnoyarsk is flawlessly inscribed in the natural landscape. Its surroundings - taiga and forest-steppe, Yenisei and the spurs of the Eastern Sayan - are picturesque and unique. Its panoramas are epic. Moreover, the fact that citizens called a fragment of the relict Yenisei taiga the City Garden says a lot about the harmony of the city and the surrounding nature.

The Siberian spirit, unique surroundings and panoramas form the basis and fix the values of the green infrastructure plan of Krasnoyarsk. However, despite the beauty and diversity of Siberian nature, many residents do not have the opportunity to contact with it constantly.

The nature of Krasnoyarsk is diverse and unique!



This is where landscapes and structures begin, end and intersect

Main structures of the Krasnoyarsk area

West Siberian Plain



- one of the largest plains of the world (circa 3 million km2)
- more than 2000 rivers (with mostly steep right bank and terraced left), more than a million lakes, about 800 thousand km2 of swamps
- harsh, continental climate, topography doesn't prevent the penetration of cold air masses from the north and the south
- low plains with monotonous relief (the average altitude does not exceed 150 m) - wide flat interfluvial areas and river valleys
- enhanced bogging, in the north - permafrost, in the south - ancient and modern salt accumulation
- the southern part - spruce-fir and fir-cedar taiga (the "urmans" - dense dark-coniferous forests in river valleys with a predominance of fir and spruce), grassy birch forests, birch-pine mixed forest.

Central Siberian Plateau

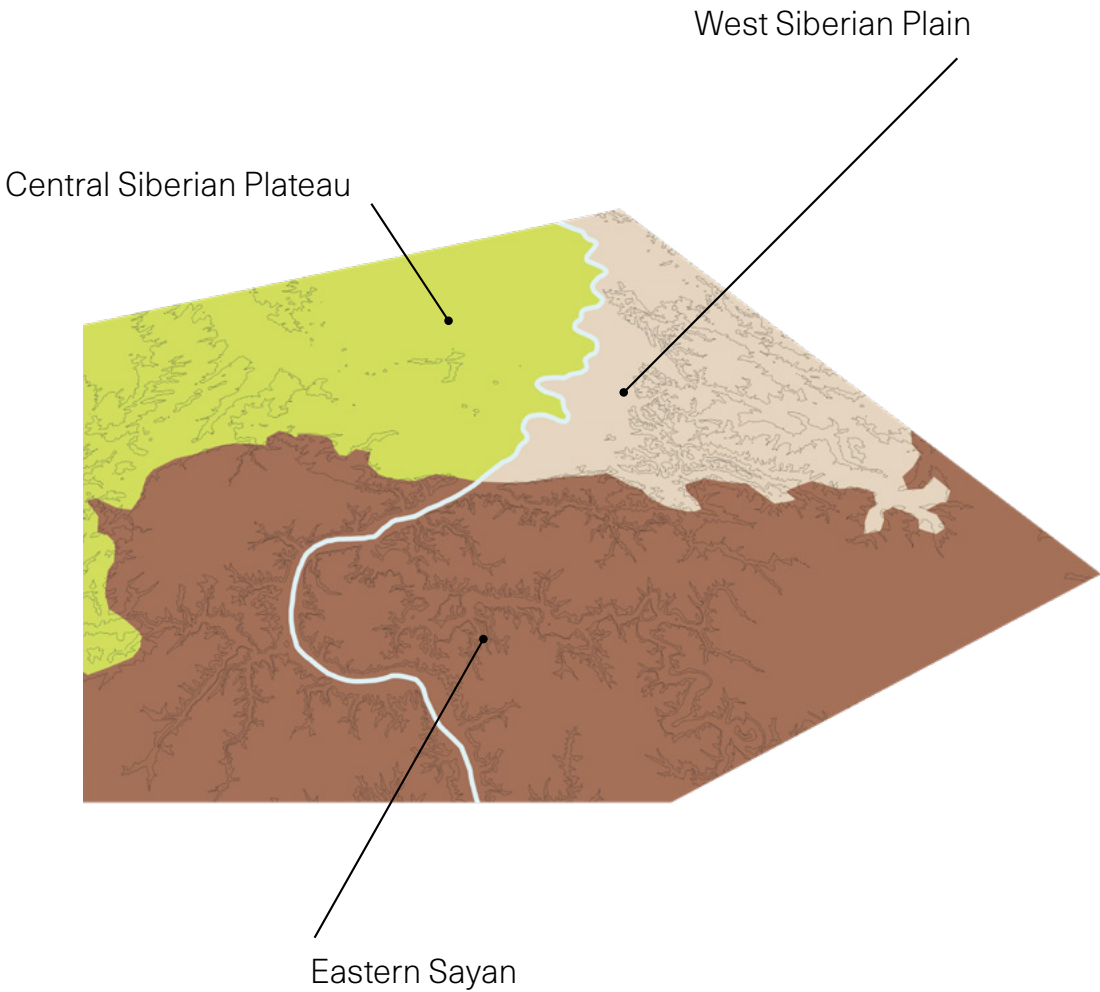


- one of the largest highlands in the world (circa 3.5 million km2)
- relief is an alternation of vast plateaus and low-mountain ridges
- continental climate with cold winters and warm summers
- more than 90% of the territory is covered with taiga forests
- mostly larch forests with spruce, fir and pine in the southwest

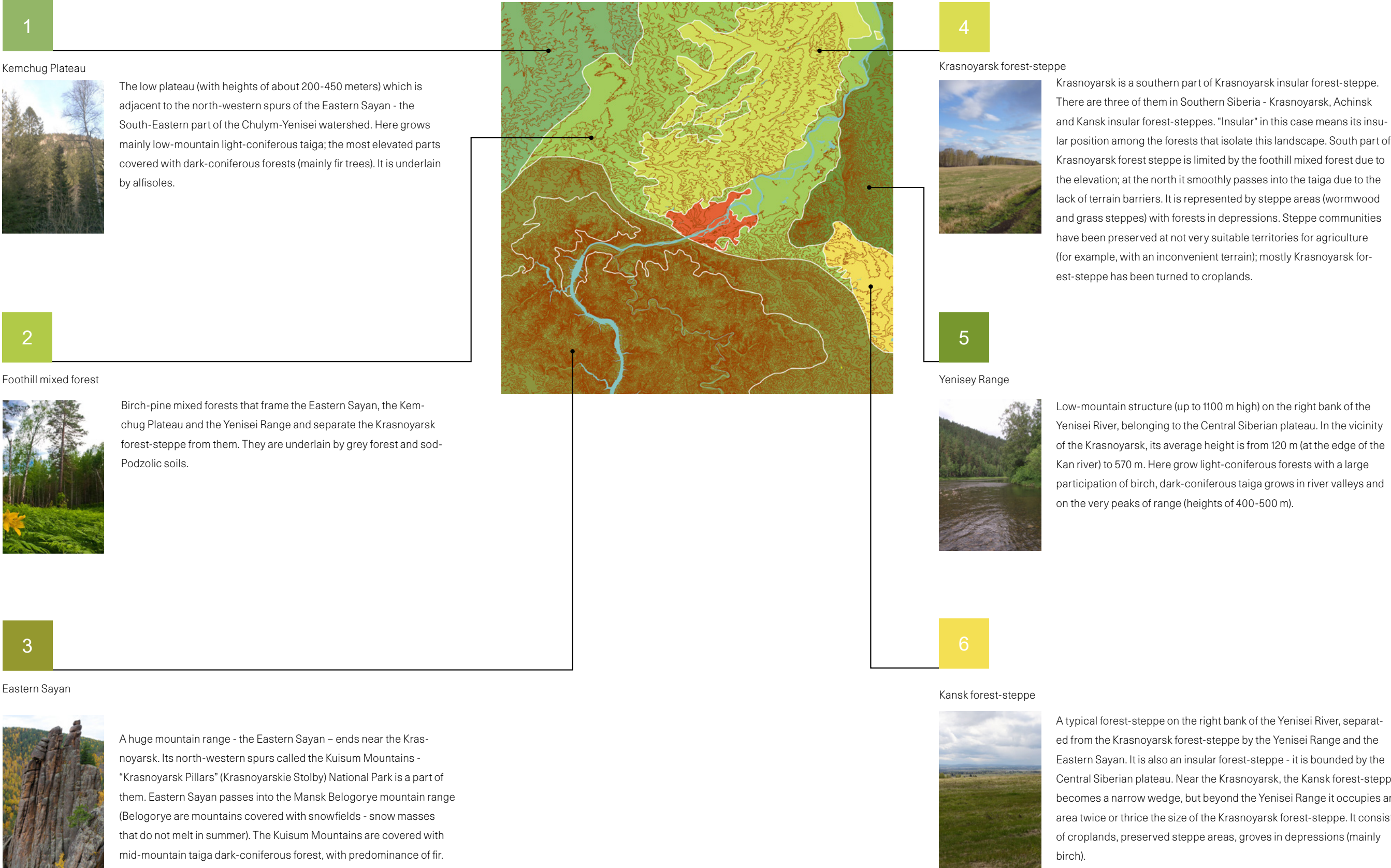
Eastern Sayan



- a mountain system in Southern Siberia longer than 1000 km extending from the left bank of the Yenisei River to the Lake Baikal
- On the north-west there is a system of mid-height flat-top white-mountains
- On the south-east there are the alpine-type ridges and glacial landforms
- continental climate
- mid-mountain dark-coniferous taiga (fir, spruce, pine), mountain tundra on the peaks, intermontane steppes and forest-steppes



Landscapes of the Krasnoyarsk area



Despite the amazing nature, citizens often do not have access to it

We understand that the real quality of life is most often felt close to home, in your neighborhood - where you can let children go for a walk, where community evolves. Therefore, accessibility to parks is one of the main criteria for a qualitative assessment of recreation in the city.

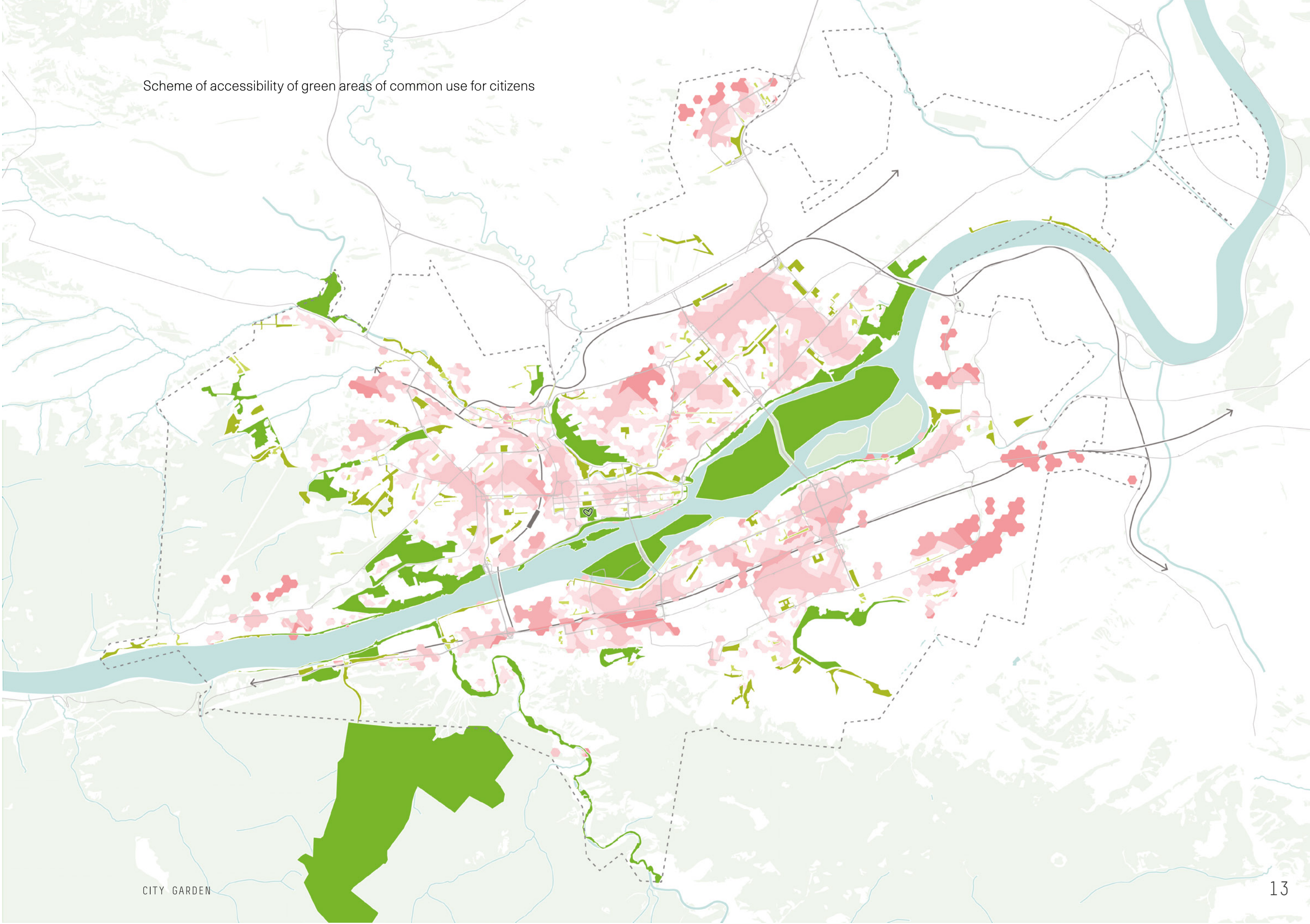
116,128 people (12% of the total population) cannot reach in 15 minutes by foot to the district park

433 559 people (40% of the total population) cannot walk in 5 minutes to a garden

205 977 people (18%) have a provision of green areas for common use less than 16 m2 per person

- Legend:
- City parks, forest parks
 - Neighborhood parks
 - Gardens
 - "Pocket" gardens
 - Do not have access to "pocket" gardens (2 minutes walk)
 - Do not have access to the gardens (5 minutes walk)
 - Do not have access to neighborhood parks (15 minutes walk)
 - Do not have access to city parks (20 minutes by public tr.)

Scheme of accessibility of green areas of common use for citizens



Among all the parameters for assessing the quality of green infrastructure, the parameter of territorial accessibility of parks is standardized in local regulations (MNGP, RNGP) and KB Strelka:

Tab. 1. Comparative table of the parameters of accessibility and typology of green areas of public use provided by the MNGP of the city of Krasnoyarsk and KB "Strelka"

Typology of green area	Accessibility, min		Area of green area, ha	
	MNGP	KB "Strelka"	MNGP	KB "Strelka"
City parks	20 PT	20 PT	15	>15
Forest parks	20 PT	-	15	-
Neighborhood parks	20	15	10	10-15
Gardens	10	5	3	1-5
"Pocket" gardens	10	2	0,5	0,1-1
Boulevards	10	-	-	-

- We would like to note that the indicators of accessibility in the local regulations (RNGP) contradict each other. Moreover the classification of parks' typologies completely absent in local norms. According to the RNGP of the Krasnoyarsk Territory paragraph 4.8. "The standards for the accessibility of territories and recreational facilities for citizens" for a temperate climate, the distance that a person can walk without the threat of hypothermia is 1000m (15 minutes on foot). At the same time, pedestrian accessibility to the "multifunctional parks" is 1350 m (20 minutes' walk). Therefore, the standard of accessibility to parks in the MNGP is written without taking into account the hypothermia threat noted above in the RNGP. In this case the recommendations developed by KB Strelka are better suited for Krasnoyarsk both for climate and comfort for its residents. Thus, we used KB Strelka park accessibility in the analysis.
- After analyzing the availability and accessibility of parks, we determined that the existing

To analyze accessibility of Krasnoyarsk parks, we took the typology and recommendations developed by Strelka KB (Book 4, section 8, Chapter 50, Table 10), since these standards are better suited both from the point of view of the climatic conditions of the city and from the point of view of human pedestrian comfort.

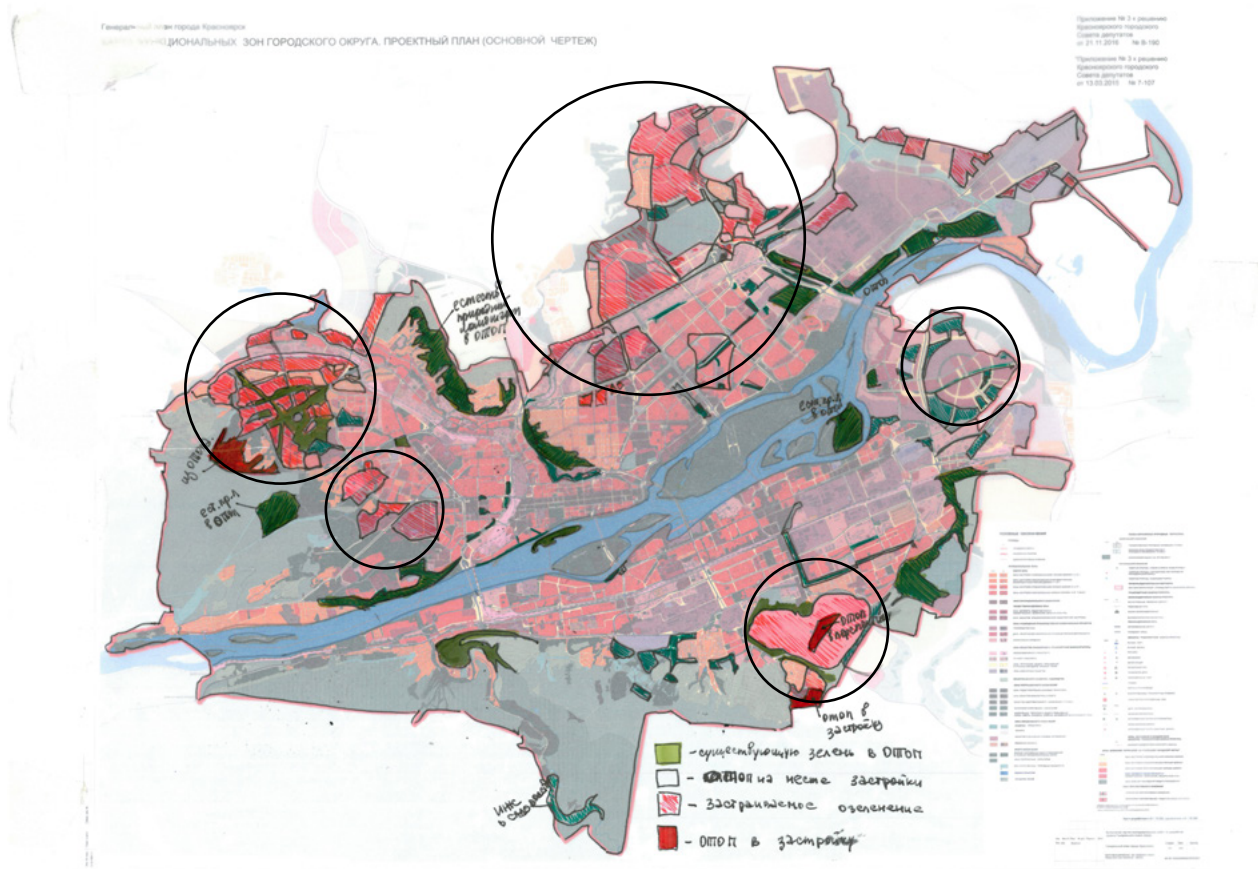
- parks and gardens are unevenly distributed in the city:
- 205,977 people (18%) have a provision of green areas for common use less than 16 m2 per person. The most difficult situation is in the Severny residential area, the Solnechny microdistrict, the White Rosy residential complex, in the Utiny Plyos, Vetluzhanka and North-West microdistricts.
- 116,128 people (12% of the total population) cannot reach in 15 minutes by foot to the district park (a park with an area of more than 5 hectares). Microdistrict "Energetikov" has one of the worst indicators of availability.
- 433,559 people (40% of the total population) cannot walk in 5 minutes to a garden or a neighborhood park (the park is more than 1 hectare). The microdistrict at the intersection of Michurin Street and Prospect of the newspaper "Krasnoyarsk Rabochy" and the Severny residential area have the worst accessibility to local parks.

Tab. 2. The number of people who do not have the Strelka KB standard accessibility to green areas

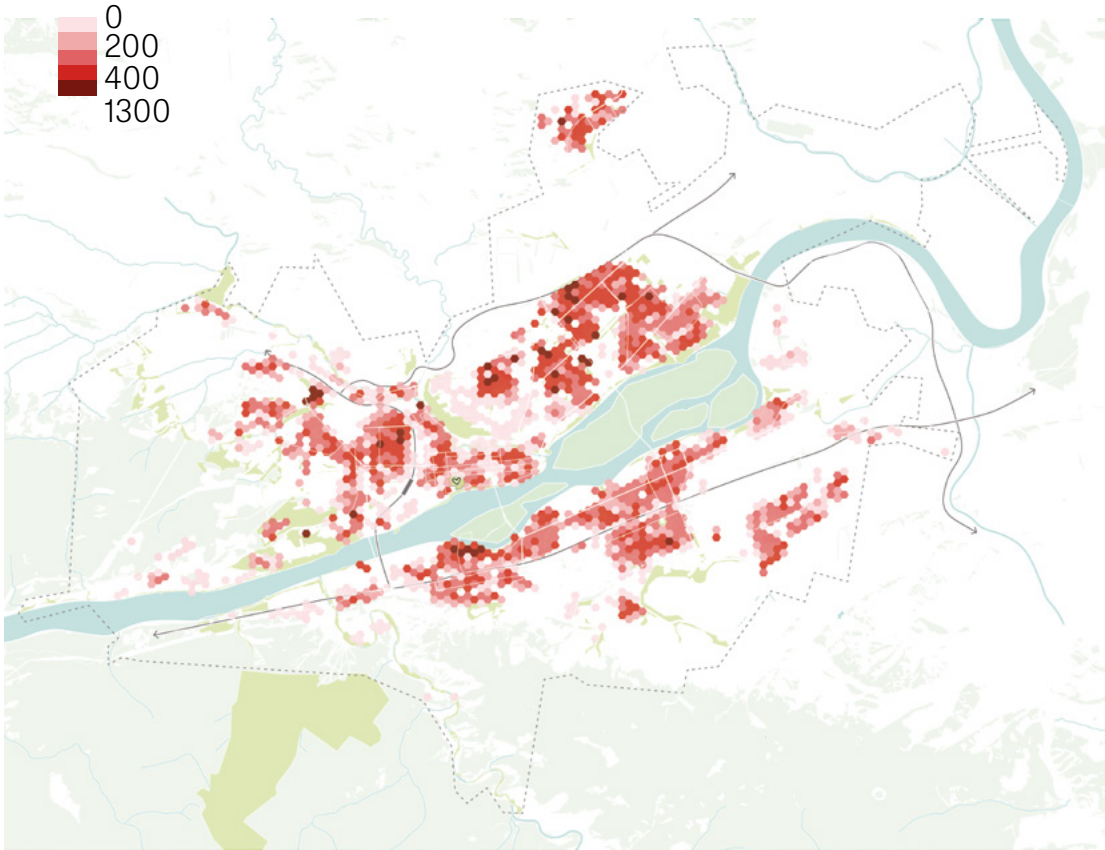
Typology of green area	Accessibility by KB "Strelka", min	People who do not have access to green area
City parks	20 PT	287 767
Neighborhood parks	15	116 128
Gardens	5	433 559
"Pocket" gardens	2	778 162

Despite the actual inaccessibility of parks for many residents, the General plan of the Krasnoyarsk threatens the further development of the city's green infrastructure plan, proposing to build up green areas without replacing them with the proper number of new parks. In the context of the growing deficit of recreational zones the territories of industrial redevelopment, communal storage zones and the banks of the Yenisei and small rivers should become the basis for the formation of new green corridors in Krasnoyarsk.

According to the General Plan of the city, it is planned to build up green areas, than develop and compact the center of Krasnoyarsk



Population density, people / ha



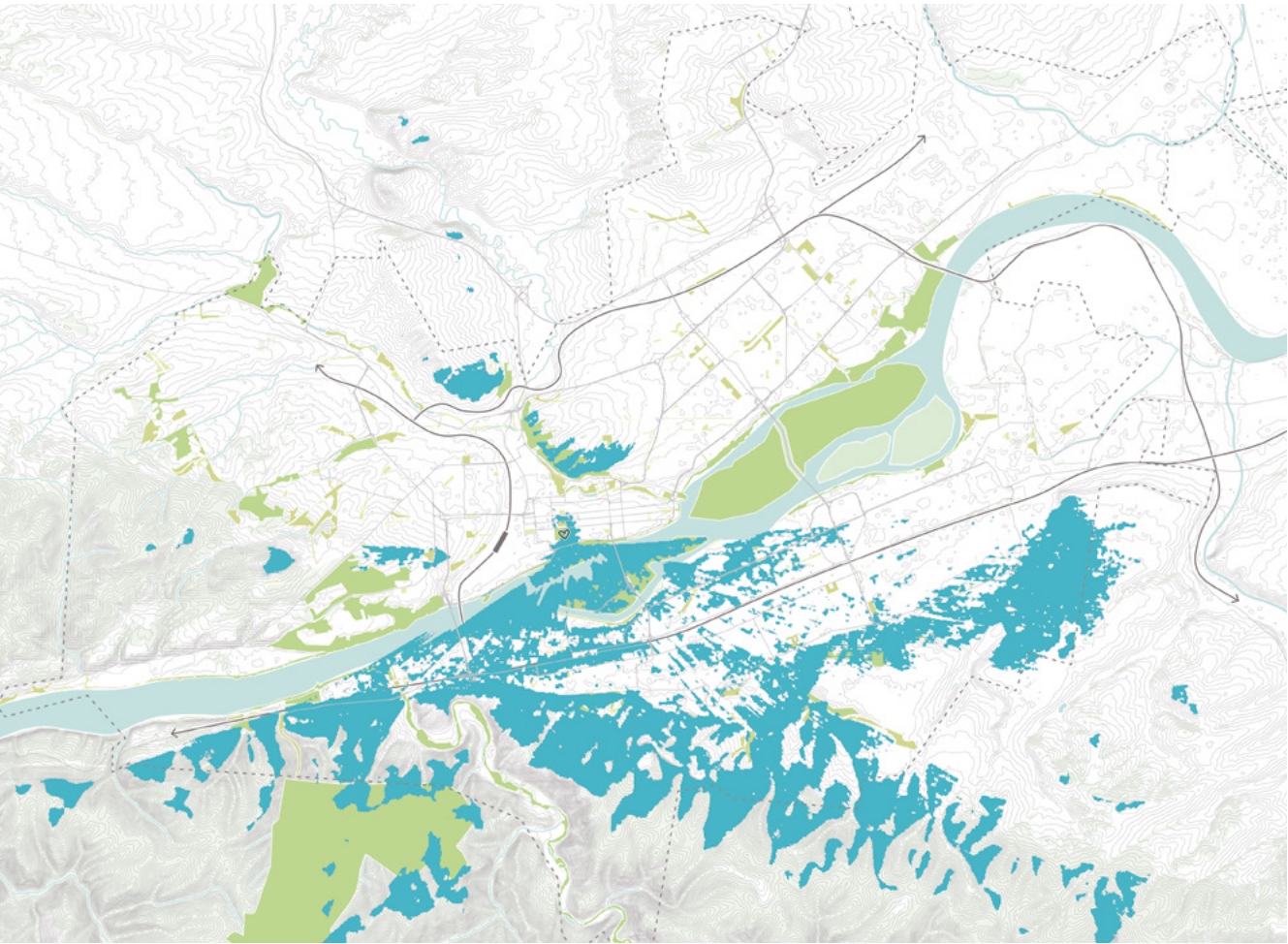
New incredible views of the landscapes are revealed in Krasnoyarsk!

New green routes linking the existing and future parks of Krasnoyarsk should pass through the areas of maximum view disclosure - city panoramas. The contemplation of the city, the Yenisei and Sayan, is an original element of the Krasnoyarsk identity that needs to be protected.

In the panoramas analysis, the dark blue colour shows the areas from which the best view is obtained!

As we can see the pedestrian flows on the Strava heatmap, in the West of the city there are already many routes and trails that are popular with Krasnoyarsk citizens. In the east of the city, despite the interesting landscapes - forest-steppes, there are no such hiking routes yet. The creation of new routes in the east and north of the city can become the basis for the urban-ecological framework of Krasnoyarsk.

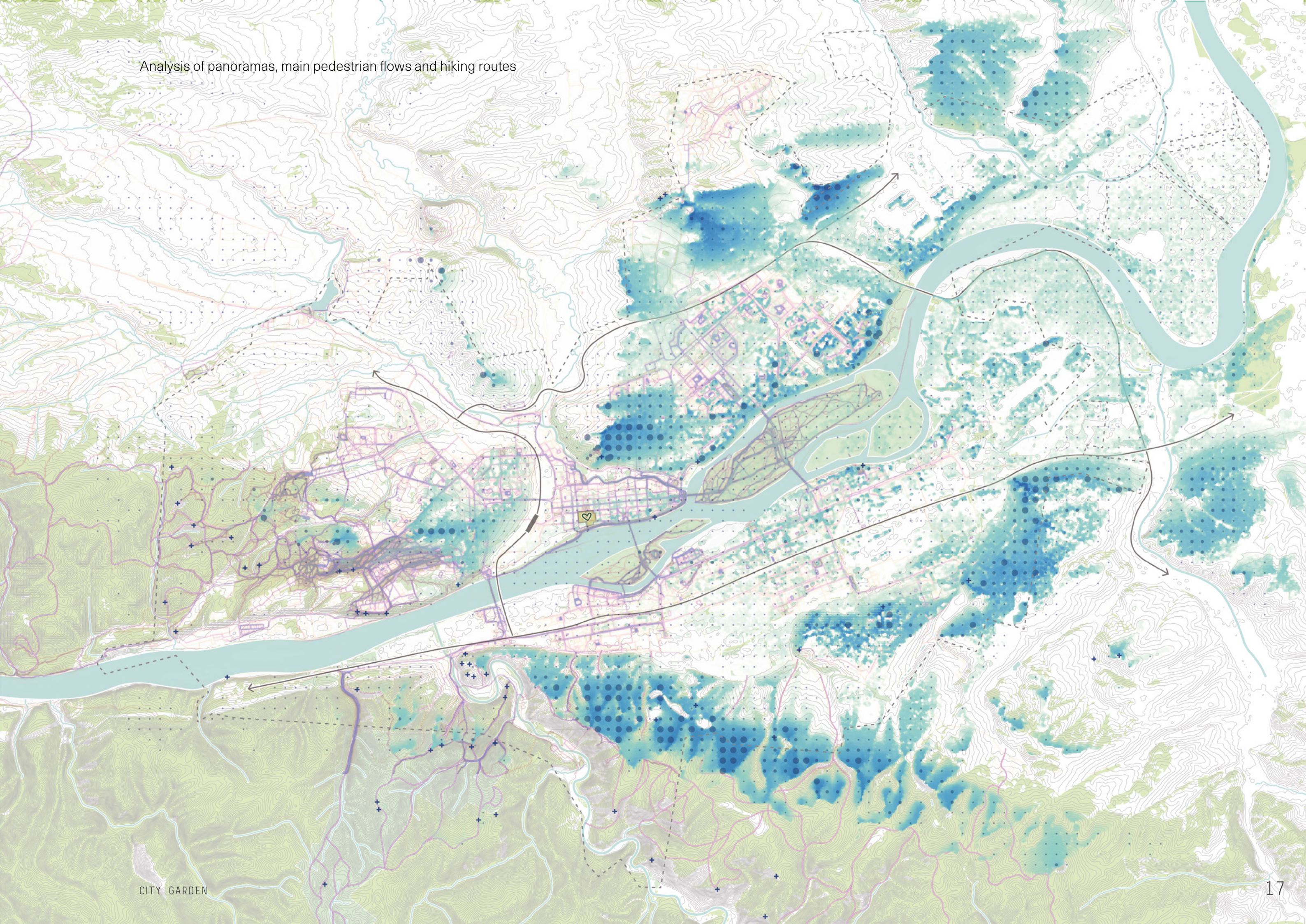
The city garden reveals a view of the Yenisei and Sayan - this is part of the park's identity



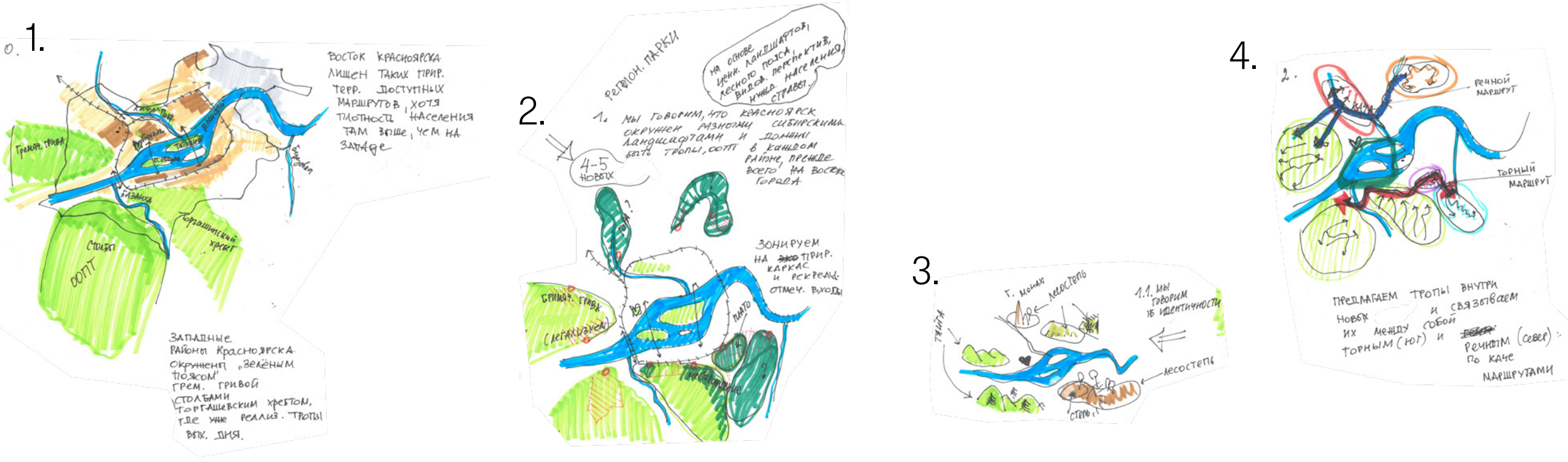
Legend

- Gradation of attractiveness of potential viewpoints
- + Existing viewpoints
- Viewability (the darker the better)
- Pedestrian Intensity (STRAVA)
- Hiking trails

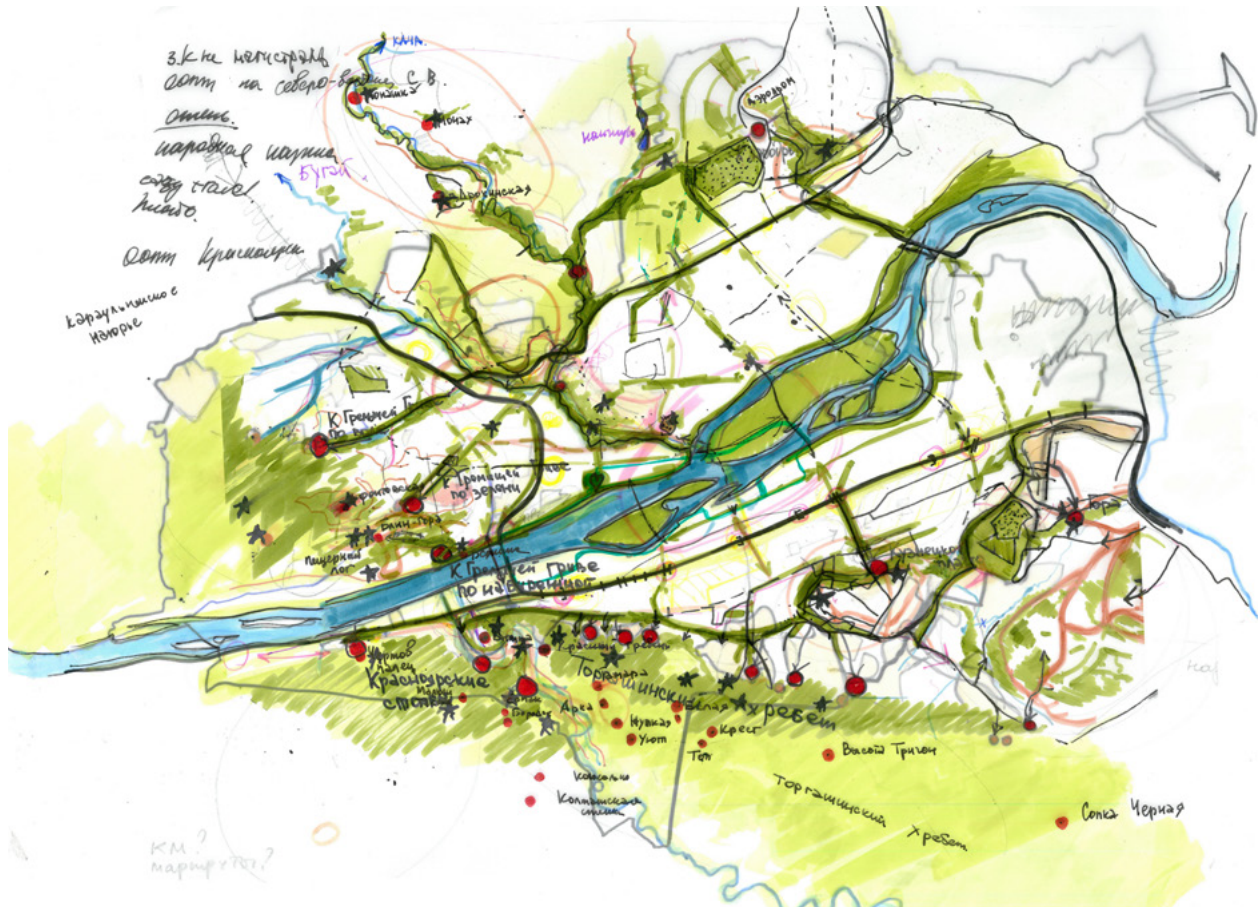
Analysis of panoramas, main pedestrian flows and hiking routes



The process of working on the Krasnoyarsk green infrastructure strategy



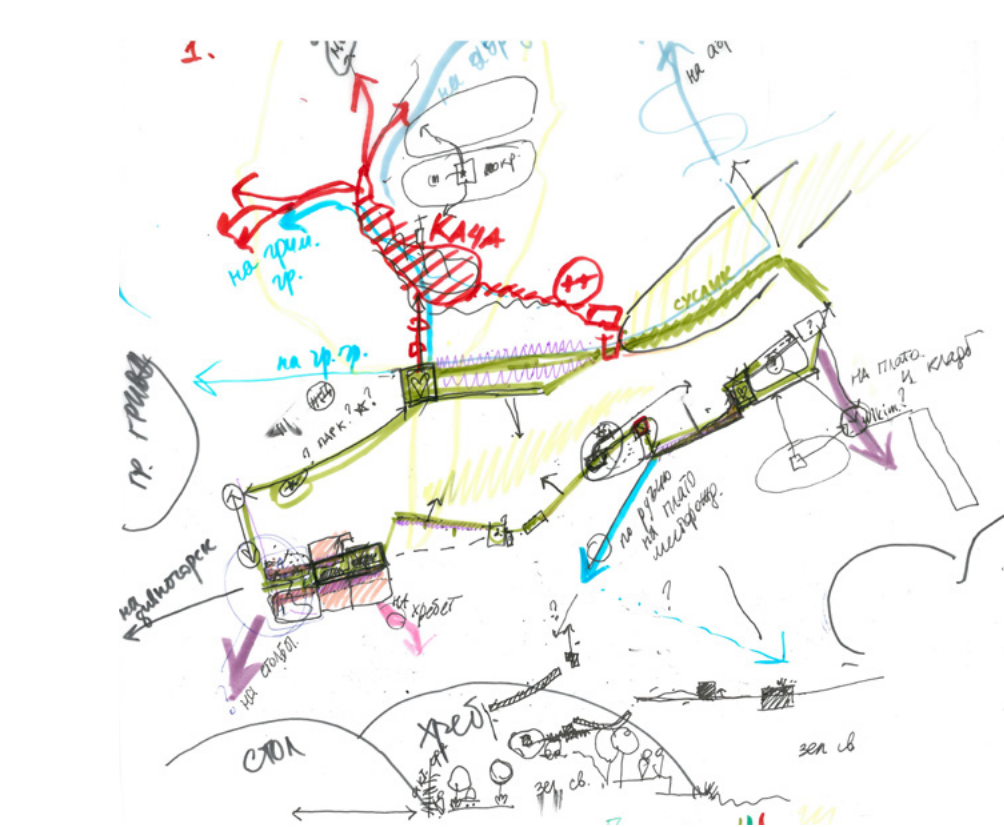
The sketch of the green frame of Krasnoyarsk, the first search for the concept



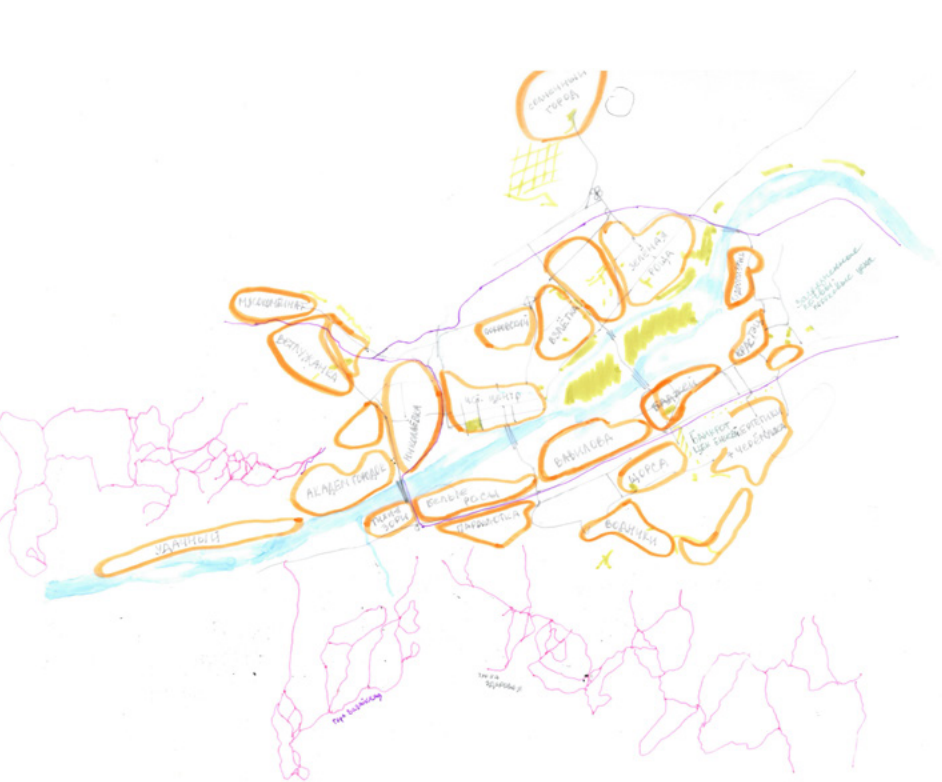
Sketch of connections of the left and right banks of the Yenisei



Exploring connections and key routes from the City Garden



Search for the vernacular districts of the city



Place of the City Garden in the green infrastructure strategy of the city

The City Garden is the heart of the city's green infrastructure strategy, where green routes begin and where they lead, where different landscapes of Krasnoyarsk merge together.

Having looked at the urban planning organization of Krasnoyarsk, we noted that the Western districts of the city are surrounded by taiga - a "forest belt": tourist routes and weekend trails have already been implemented in Stolbu, Gremyachaya Griva and Torgashchinsky ridge. However, the residential areas in the East of the city lack such accessible natural parks with equipped trails, despite the lack of recreational areas and high population density.

Therefore, in the concept of the green infrastructure plan of Krasnoyarsk, we propose the creation of five new regional parks in the East of the city - new cores of the urban-ecological frame.

The new regional parks will emphasize the uniqueness of the forest-steppe landscapes and the mixed forest zone of Krasnoyarsk, the Kachi River and the city's lakes, and will also protect the regional nature of the city and the ecological framework from buildings and anthropogenic threats.

New forest-steppe parks in the North are connected with each other and Gremyachaya Griva by a new tourist river route along the Kacha River and its tributaries: the Nanzhul River, Serebryanny and Bugachevsky Creek - revealing the peculiarities of the small rivers of the city.

In addition to the recreational component, the Kachi green corridor connects the northern forest belt with the city center, bringing the "forest to the city", supplying fresh air.

In the south-east of the city, two new regional parks appear in the area of the Kuznetsovsky plateau, connected with the Eastern Sayan mountain tourist route around the Black Sopka, which combines the best views of Krasnoyarsk.

♥

City garden

☆

The cores of the urban-ecological framework

📍

View points

⊙

Entrance groups

—

"Green Ring"

—

Main green routes

—

District green ties

—

Trails

■

OTOP as part of the Green Ring

■

Existing and new OTO

■

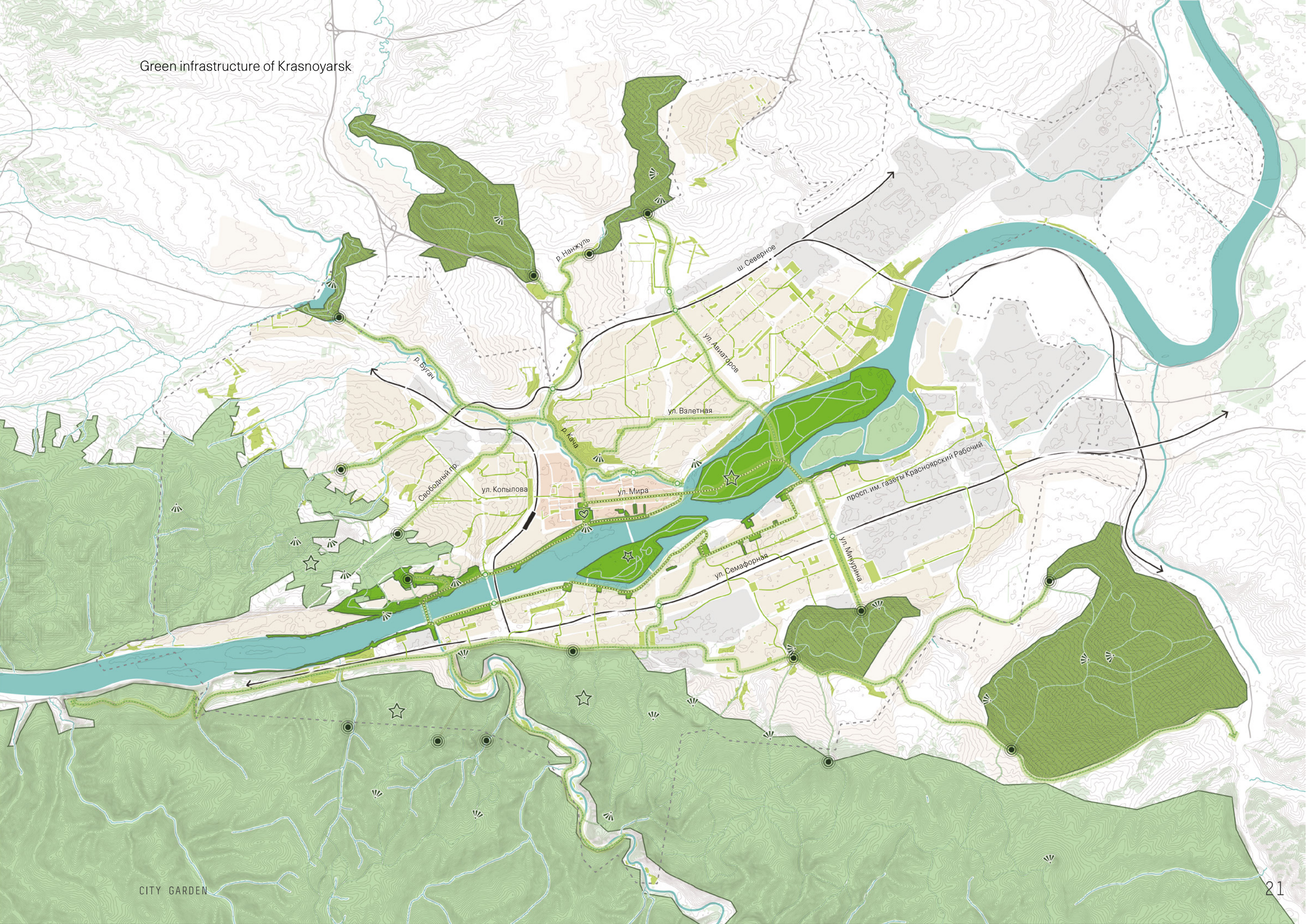
New regional natural nuclei for recreation and green frame conservation

■

Existing regional natural cores including recreational areas

■

Forest belt



New city parks can be reached on foot or by bicycle along two systems of routes: RIVER TRAIL - along the Kacha River and its tributaries, and along the MOUNTAIN TRAIL - around the Black Sopka, which originate in the CITY GARDEN or on the central "GREEN RING".

The territories next to the routes should form a new image of Krasnoyarsk - a business card - providing the necessary services, telling about historical sights, conveying important information about the city. New boulevards, parks and squares of the city appear on the way of the routes, new landscaping of areas in deficit zones is connected by green corridors binding Krasnoyarsk nature with the city center.



The central "Green Ring" connects the left and right banks of the Yenisei

The central "Green Ring" connects the left and right banks of the Yenisei, revealing now inaccessible territories and creating new recreational spaces for the entire city. The total route is 28 km: the path passes not only through the city center and Tatyshev Island, but also through the now undiscovered right bank of the Yenisei, offering 8 new parks and squares for city residents.

- Legend
- City garden
 - The cores of the urban-ecological framework
 - View points
 - Entrance groups
 - "Green Ring"
 - Main green routes
 - District green ties
 - Trails
 - OTOP as part of the Green Ring
 - Existing and new OTO
 - New regional natural nuclei for recreation and green frame conservation
 - Existing regional natural cores including recreational areas
 - Forest belt



HISTORICAL AND CULTURAL ANALYSIS

1.2. Analysis of the historical and cultural features of the development of the territory of the cultural heritage site of regional significance (place of interest) “Site of memory associated with history and culture of the city” and established zones with the special land use.

The history of the Central Park in Krasnoyarsk and the development of its architectural and landscape structures

Tsarev V.I., Doctor of Architecture
Tsarev V.V., PhD in Architecture

Krasnoyarsk, 2019

Krasnoyarsk became the administrative center of the Yenisei province in 1822. The first governor A.P. Stepanov was actively engaged in the process of city development. He took steps to create a project plan for Krasnoyarsk, which received the highest approval in 1828, after it was finished. [Fig. 1.](#)

The plan defined a new city center - Cathedral Square, which on the south side adjoins the forest area preserved at the suggestion of Stepanov for the arrangement of a public garden. [Fig. 2.](#)

It should be noted that the original boundaries of the plot set aside for the garden had slightly different dimensions, as shown in the plan, "taken from Krasnoyarsk in its present form" (1827). [Fig. 3.](#)

They were defined on the north side by Voskresenskaya Street (now Prospect Mira), and on the south by the bank of the Yenisei. The eastern border of the plot was in the direction

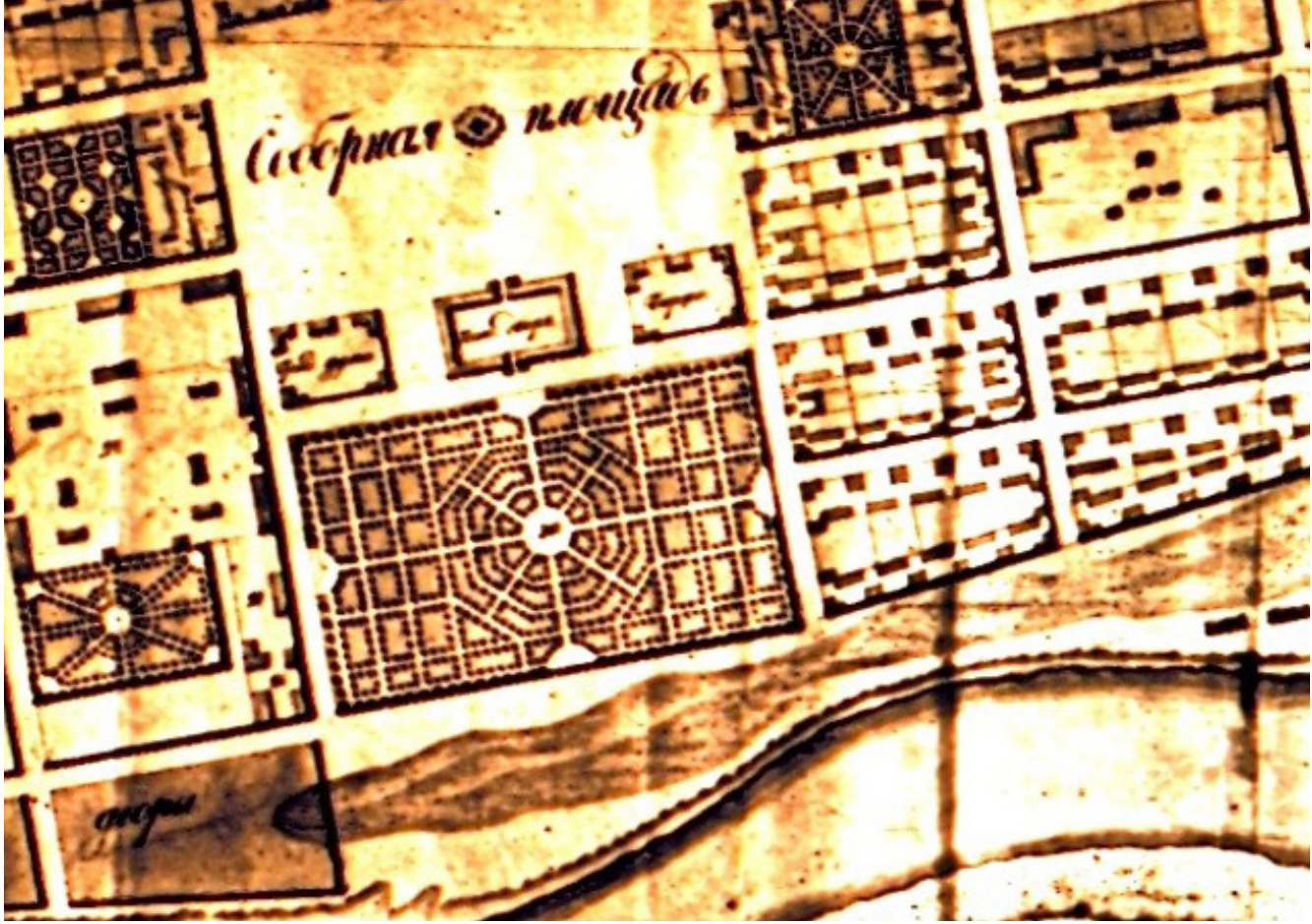


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of the modern Diktatury proletariata street, and the western border was along the current street of Dekabristov. The rectangle of the forest, the dimensions of which were approximately 660 × 430 meters, in the meridian and latitudinal directions were crossed in the center by two straight alleys.

In 1825, the St. Petersburg architect V.I.Geste, who worked together with the provincial architect P.F.Votsky drawing up a plan for Krasnoyarsk. In his report to the Ministry of the Interior, he said that "the public garden, which was assigned in the middle to the strait has been preserved and made in the correct form." In accordance with the design concept, V.I.Geste reduced the area of the garden on the plan, which acquired new borders: on the north side - along Gostinskaya Street (now K. Marks Street), and on the east of the forest area, the territory for three new city blocks was cut off ...

According to the plan, the size of the garden plot was about 440 × 270 m.



2

The next stage of transformations of the city garden in Krasnoyarsk is associated with the activities of the governor VK Padalka, covering the years 1845-1861. In the descriptions of the city of the 19th century, it was noted that through the efforts of the governor "the garden was perfectly planned: flower beds were laid out along the main and some side alleys, a summer room for a noble meeting, a country house for the governor, a beautiful covered veranda for dancing, a room for playing bowling pins and a luxurious, strictly Chinese-style gazebo, with multi-colored painted glass, a fancy Chinese lantern, multi-colored glass bells on the roof and a weather vane in the shape of a dragon.

The results of the transformations of the city garden, carried out in the middle of the nineteenth century, were graphically reflected in the design plan for Krasnoyarsk, drawn up by the provincial surveyor A.I.Butakov, and approved in 1855. [Fig.4.](#)



3



4



5



7



8



6

In accordance with the previous project plan of the city, the northern border of the garden ran along Gostinskaya Street, forming the ensemble of Cathedral Square. Instead of the three city blocks previously proposed on the east side of the garden, the new plan shows three formed half-blocks, separated from the garden area by a lane called Sadovy (now Dzerzhinsky Street). On the western side, a significant section of the garden was again cut off by the punching of a new alley (now Gorky Street). Initially, on this site, located between the modern streets of Gorky and Dekabristov, a public garden was laid out, which disappeared by the end of the century. The layout of the garden, the new dimensions of which were approximately 420 × 260 meters, had a central alley, laid from north to south from Cathedral Square to the banks of the Yenisei.

By the end of the 19th century, the state of the city garden had deteriorated significantly, which was expressed with regret by the townspeople. "Previously, the maintenance of the garden was strictly supervised. But after the governor Padalka, all this fell into decay: only a pitiful skeleton remained from the Chinese gazebo, the country house burned down, the rest of the buildings were also left to the ravages of time. Only by the time the heir to the crown prince traveled, in 1891, instead of the dilapidated old one, a new building was built for the summer premises of a noble assembly and a gazebo in the Russian-Byzantine style to meet the distinguished guest. But, in spite of such poor maintenance of the garden, the latter still attracts in the summer from all parts of the city a lot of diverse public, who come here to breathe clean, healthy air after the choking dust that stands in the city streets". [Fig. 5, 6, 7, 8](#)



9

In the early 1890s, the coastal area adjacent to the garden, the so-called “shooting gallery,” was given over to the Primary Education Society, which organized a play-ground here for children to play and exercise. However, in 1896, this territory was allotted to the building of the male theological seminary, which was erected in 1900–1903.. [Fig. 9](#)

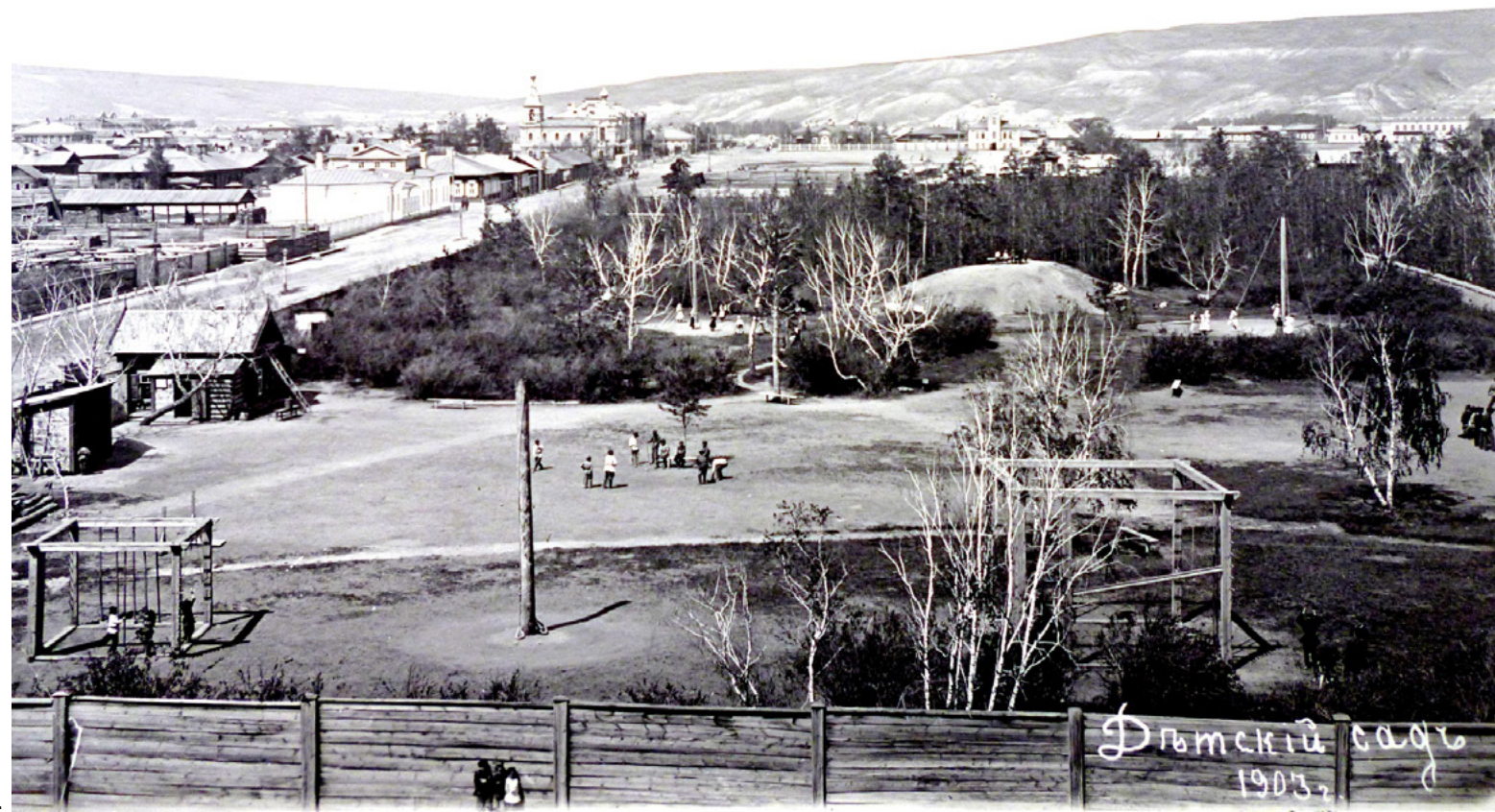
The plan of Krasnoyarsk, drawn up in 1906, shows that at the turn of the century Sadovaya Street (now Bograd Street) ran along the southern border of the garden. [Fig. 10](#)

The layout of the site, the size of which has not changed, retained the basic elements inherited from the middle of the nineteenth century. Among the objects in the garden were the wooden buildings of the summer public meeting and a veranda set in the central alley.

Descriptions of Krasnoyarsk at the beginning of the twentieth century indicated that “in the south-western corner of the kindergarten, a kindergarten with equipment for various games and gymnastic exercises was set up, the territory of which was allotted to replace the “ shooting gallery ”site given to the seminary; entrance to the garden was from Arhierejskij lane, since the kindergarten is separated from the city by a high



10

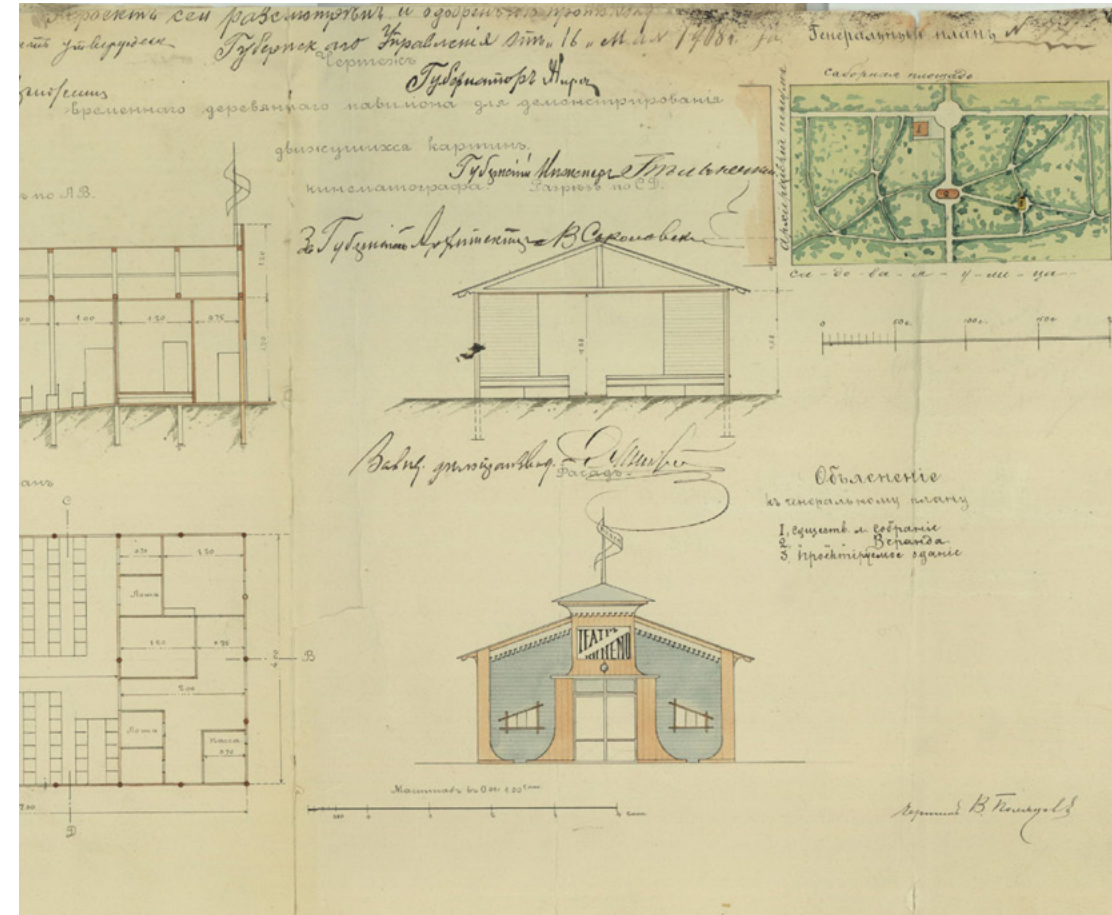


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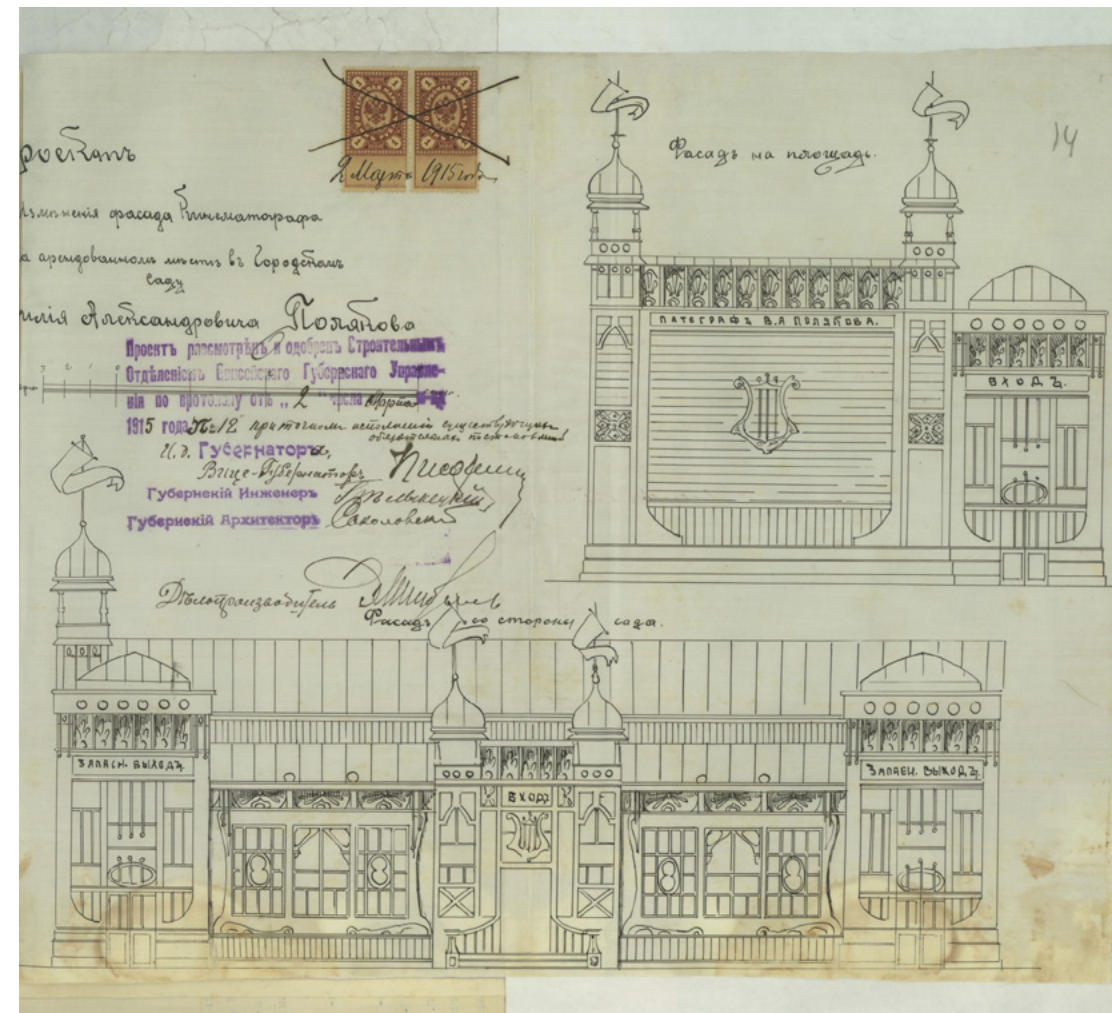
board fence to isolate the children's audience from the adult. [Fig. 11.](#) On the site of this kindergarten, according to the recollections of the citizens, “there were few trees; almost in the center there was a large slide, like a mound; there was a bench at the top of the slide; sledding down the hill in winter, and just running around in summer, competing for the speed of the race; besides the playground for playing small towns and croquet, which require a large field, there were also “giant steps”. Children and adolescents intensively visited this place, and in some periods adults also used games, especially ‘gorodky’. ”

In 1908, technician V. Polyakov built a wooden building for cinema in the eastern part of the city garden “on the site where the dacha used to be”. [Fig.12.](#) On April 27, 1913, the City Duma decided: “to allow V. Polyakov to construct a cinema building on a plot of land leased from the city, measuring 100 square meters. in the City public Garden, at the corner of Sadovy Lane. and Gostinskaya st. ” The cinema was opened, but on September 22, 1913, the building burned down in a fire.

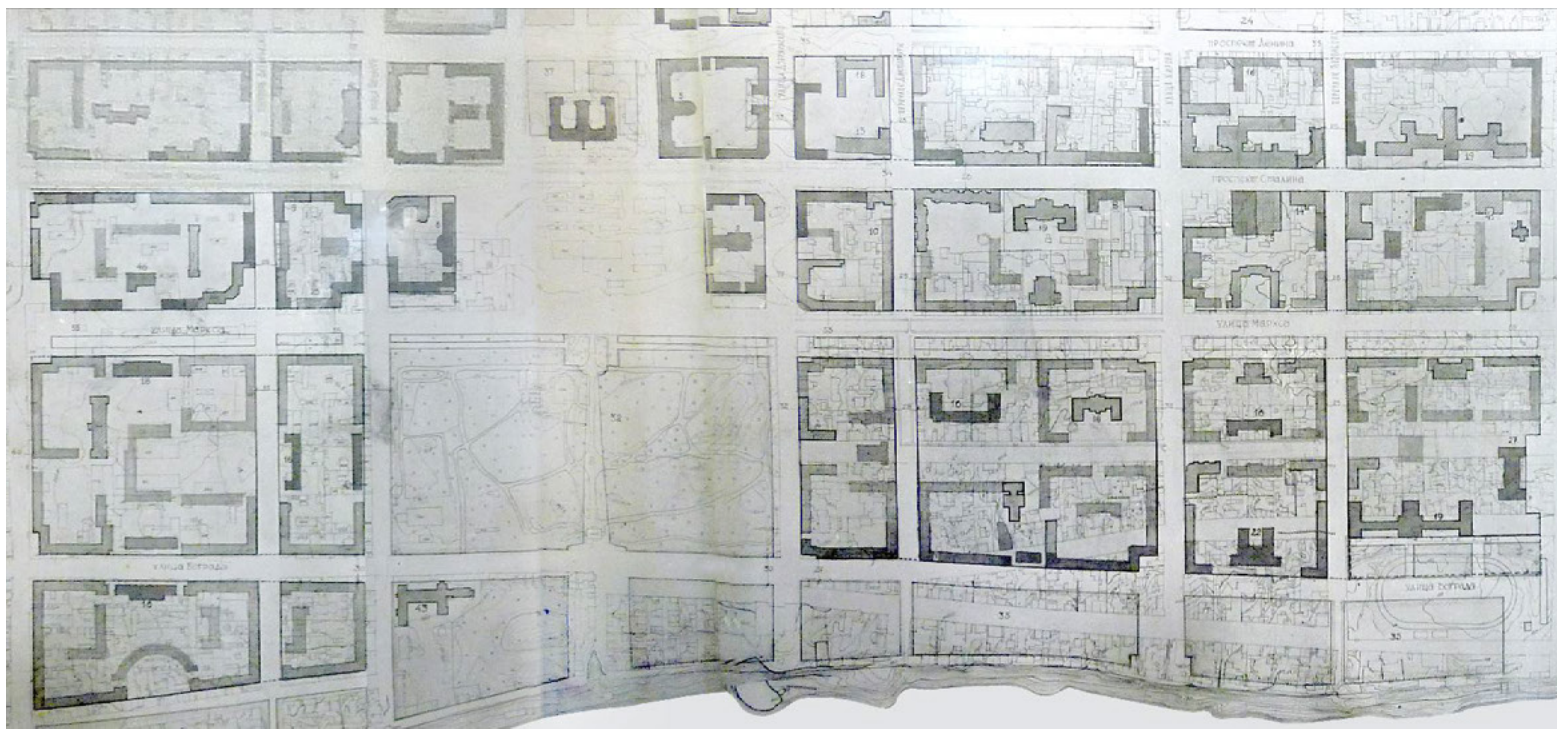
On April 30, 1915, the city commission inspected the newly construct wooden building for the electro-theater in the City Garden and found that “the building was built according to the project approved by the building department on May 1, 1913 and the newly approved project for changing the facades of March 3, 1915 correctly and firmly why they decided to allow the owner V. Polyakov to open it for public use. ” During the Soviet period, the summer cinema in the city garden was named ‘Luch’ and operated until the end of the 1960s, when a modern stone cinema was built in its place. [Fig. 13.](#)



12



13



Since 1935, the city garden has been called the Gorky Central Park of Culture and Leisure. In 1936, the first children's railway in the republic was equipped in the Central Park of Culture and Leisure. In the same year, the Mother of God Cathedral was destroyed, which together with the city garden formed the ensemble of the main square of Krasnoyarsk.

Fig. 14, 15.

In the post-war period, a partial replacement of tree plantations was carried out in the central park, as a result of which 300 dead trees were removed in 1952, and more than 1,800 young pines, larches, lindens and other valuable plants were planted in their place.

In the second half of the 1950s, American maple, as well as other deciduous trees, began to be cultivated in Central Park. Floriculture was very well developed, represented by flower beds and paths with flowers, among which roses, gladioli, cannes stood out. Alexander Leopoldovich Yavorsky, a botanist, founder of the Stolby reserve, expressed the opinion that in the future it would be necessary to diversify woody vegetation, "taking a course on the development of a botanical garden here in terms of its park use".

In the general plan of Krasnoyarsk, approved in 1951 (Lengiprogor), the architects paid attention to the need to expand the park in connection with the growing population of the central part of the left-bank city. The existing system of streets, the value of the surrounding buildings, as well as the proximity of the river, dictated the expediency of further development of the park in a southern direction.

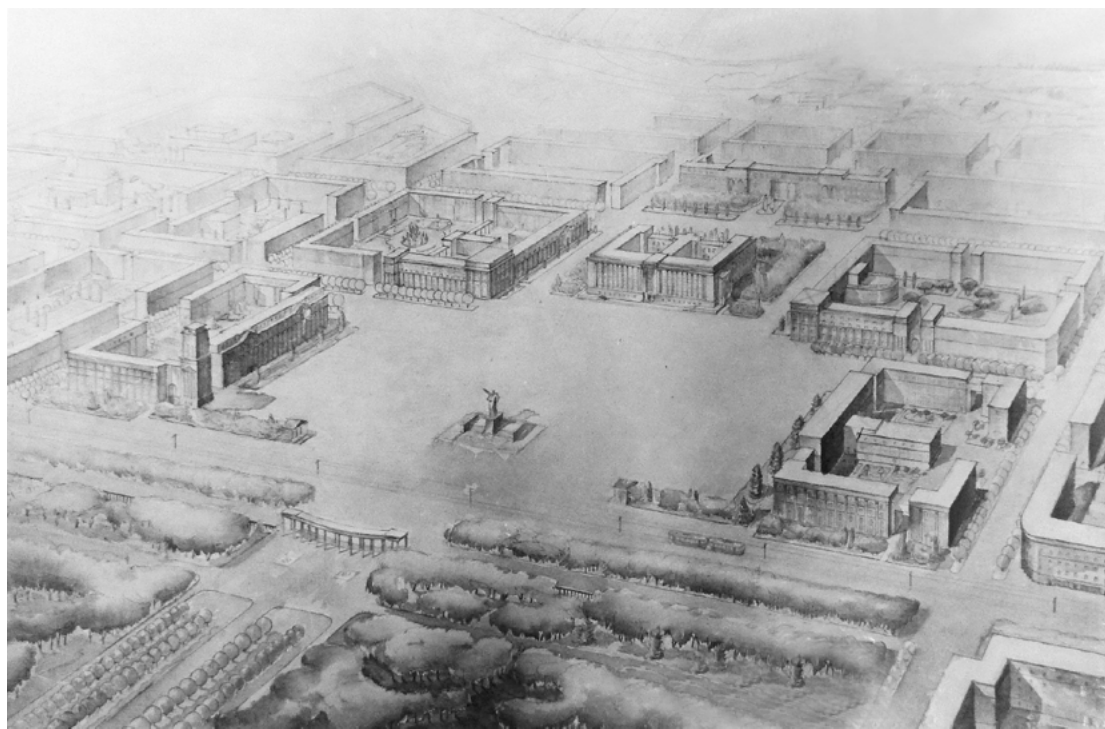
According to the plan of the chief architect of the general plan, Y. Kilovatov, it was planned to build a wide stone staircase from the center of the upper coastal strip of the park to the water and boat stations. On both sides of the staircase, it was planned to build stands for spectators who would have the opportunity to observe competitions in rowing, swimming and other water sports. It was planned to outline the coastal boundaries of the city from the park with a wide chain of boulevards.

The 1960s became the next stage in the transformation of the central park of Krasnoyarsk, associated with the development of a new master plan for the city (Lengiprogor, 1960).

During the further reconstruction of the park, it was proposed to isolate the park from main traffic roads, with a free and safe connection with the coastal recreation area and the beach.

The other equally important dimension for the organization of the Central Park of Culture and Leisure was the removal of attractions outside the existing territory, using the 'Otdykha' and 'Tatyshchev' islands.

In 1972, practical measures for the reconstruction of the central park began. As a result of which it received access to the banks of the Yenisei. However, the next planning transformations led to a significant reduction in green spaces. Fig. 17.



In the main provisions of the modern general plans there is a proposal for creation of a Unified System of Green Infrastructure of the city, where islands, new embankments of the Yenisei, forest parks, suburban woodlands will be included.

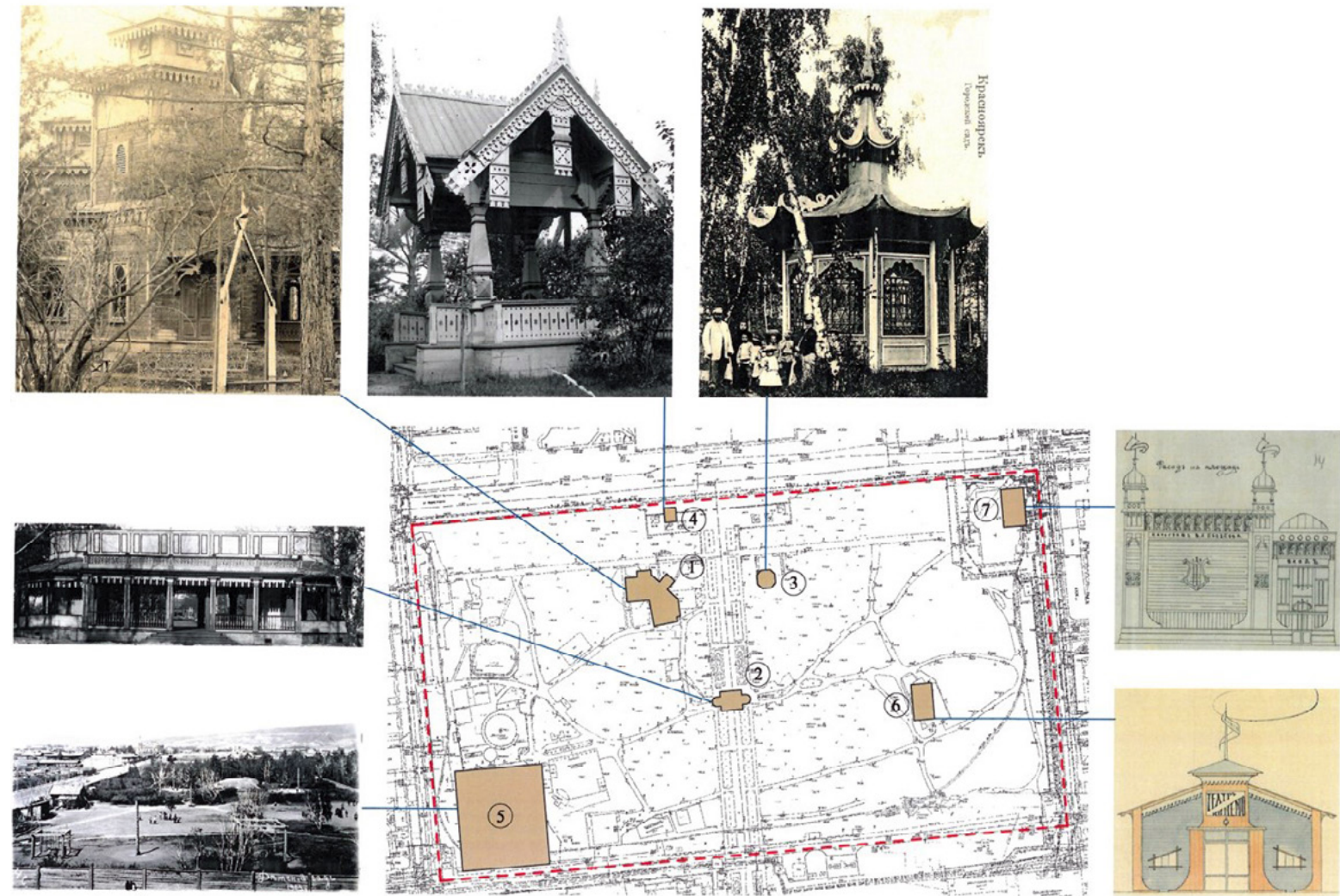
The historical stages of the formation of the central park of Krasnoyarsk indicate the need to use the principle of continuity in the new concept of its development. Which will be based on the study and application in modern conditions of previous design ideas (interconnection with the water area and natural landscapes, the creation of a "green suite").

Reconstruction of the central park as the main core of the city landscaping system will require a revision of its role in the cultural and historical environment of the city, which can be aimed at implementing the idea of forming a botanical garden. In general, the forthcoming transformations of the central park should be associated with the strengthening of its importance as an essential element of the city-wide center and ecological framework of Krasnoyarsk.



Historical and cultural base plan

Comprehensive scheme of the preconditions for development of the competition site with the indication of the use-restricted zones, including regime zones within the territory of the culture heritage site of regional significance "Site of Memory Associated with History and Culture of the City" with the representation of the historic development facilities (regime RP-4)

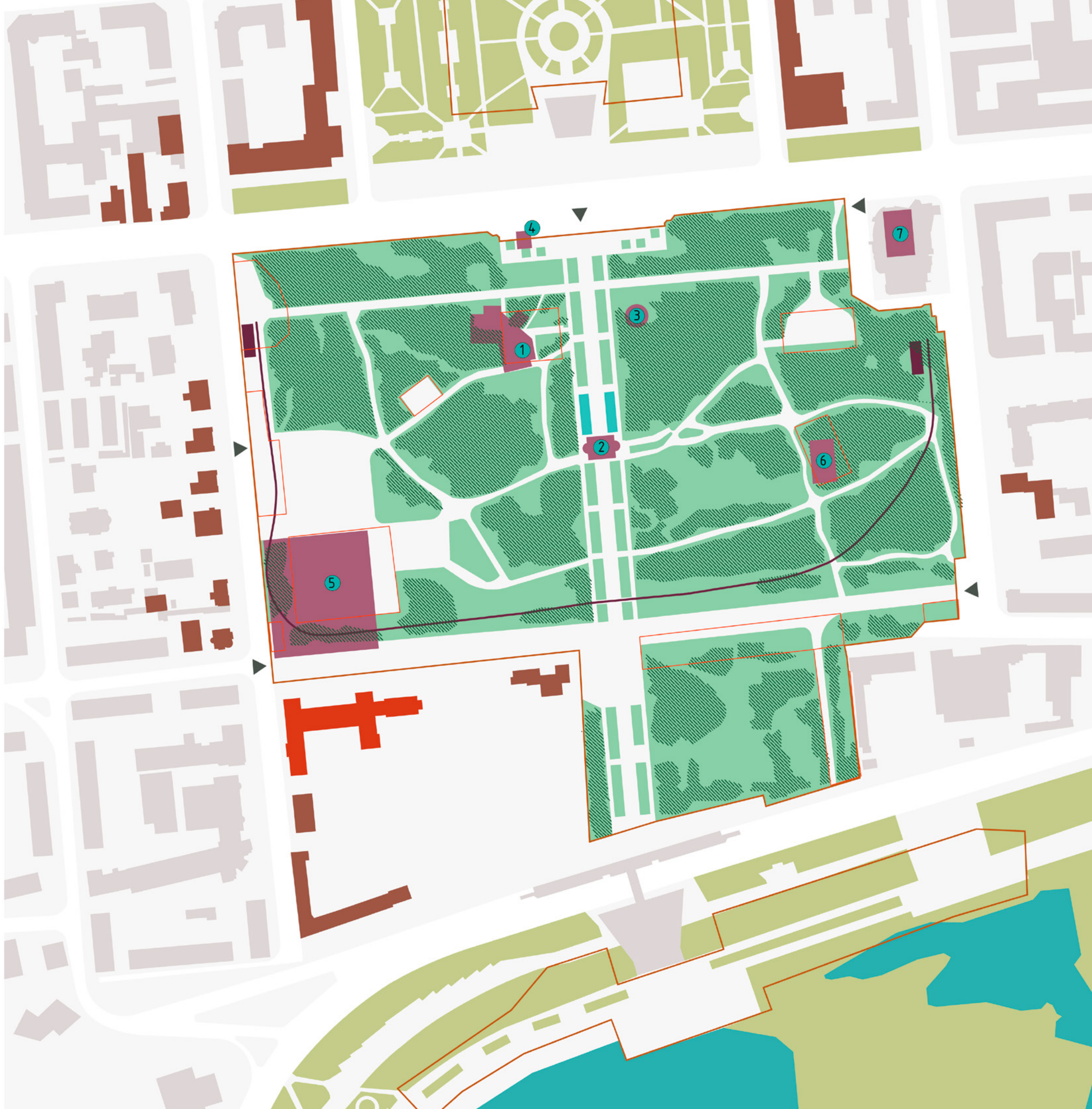


List of lost objects in the park:

- 1. Summer Public Meeting Room (1840s - 1960s)
- 2. Veranda for dancing (1840s - 1930s)
- 3. Chinese gazebo (1840s - 1960s)
- 4. Arbour in Russian style (1891 - 1930s)
- 5. Kindergarten (1896-1920s)
- 6. Country house for the governor (1840s - 1860s)
- 7. Cinema by V.Polyakov (1908-1912)
- 8. Cinema by V.Polyakov (1913-1915 - 1920s)
- 9. Cinema "Luch" (1930s - 1960s)

Legend:

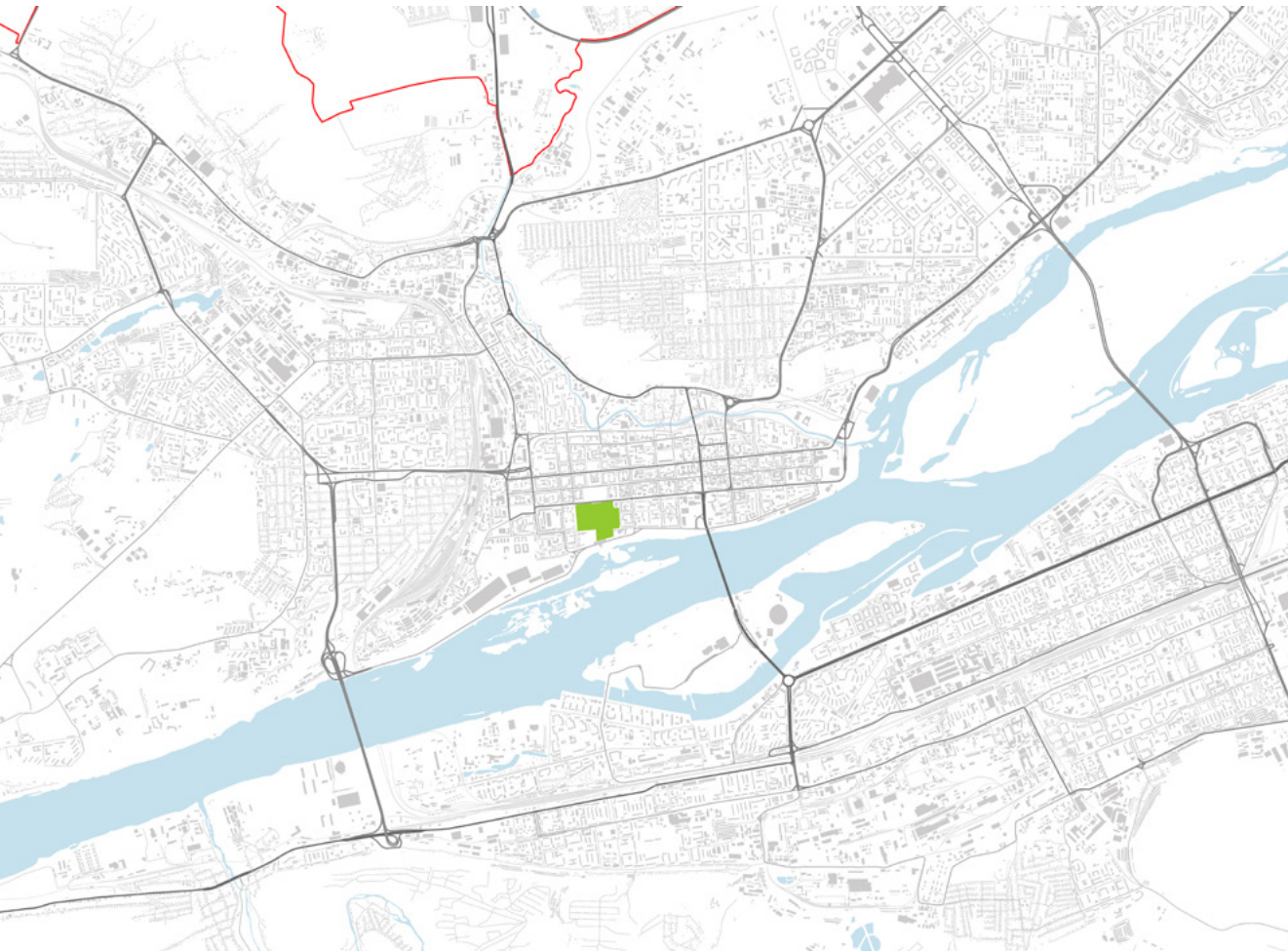
- Regional Cultural heritage sites
- Federal cultural heritage sites
- Existing development
- Lost historical buildings and structures of the park
- Borders of the territory of the cultural heritage site - a landmark of regional significance "Memorable place associated with the history and culture of the city"
- Historical trace of the children's railway



Site plan of the territory

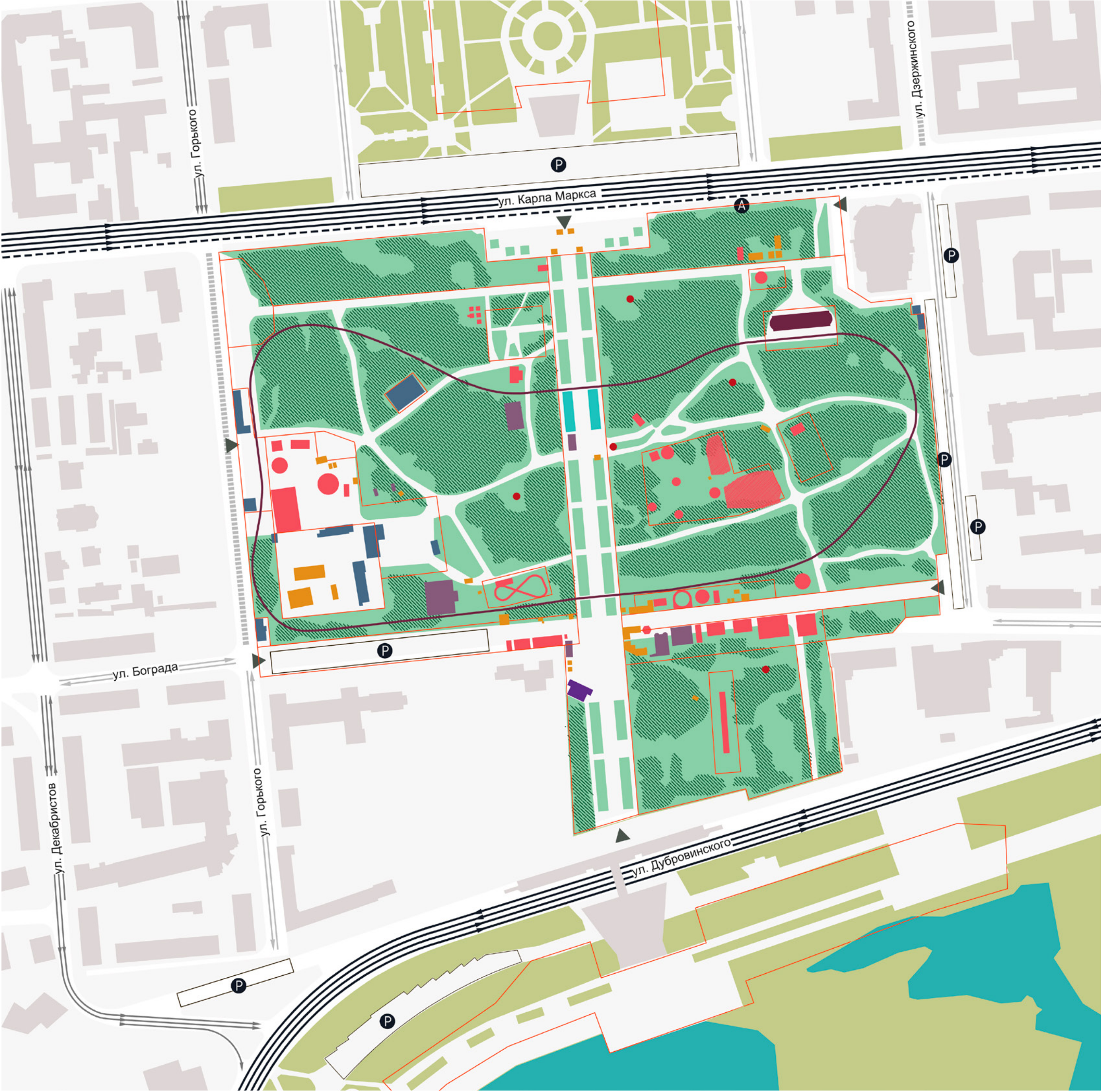
including graphic representation of the existing functional zoning, transport arrangements of the adjoining street and road network, engineering infrastructure, use-restricted zones

layout of the competition site in the city and in the system of the public spaces



Legend

- Entrances
- Children's Railway
- Attractions
- Cafe
- Pavilion and Kiosks
- Utility structures
- Monument
- Stage
- Regime boundaries
- Parking
- Urban Streets
- Dedicated PT lane
- District Streets
- Streets of local importance
- Pedestrian streets
- Public transport stops



COMPREHENSIVE ANALYSIS OF THE TERRITORY

1.3. Comprehensive assessment of the problems and preconditions of development of Gorky Central Park subject to its role in the system of public spaces of the City of Krasnoyarsk

Description of the existing situation of the project territory and its environment, including historical and cultural features of the territory of the cultural heritage site

Central Park today is a place with great potential and great challenges. During the lease of the object, green spaces, objects and improvement elements have seriously degraded. And many were irretrievably lost. Some of the green spaces in the east room were destroyed in order to create areas for new attractions. The business model of the park is based on the sale of tickets for attractions, rental of equipment at the skating rink in winter. Recently, the skating rink has been flooded in all alleys of the park, which makes it difficult and impossible for other types of its use.

Valuable tree species have survived here, but a significant amount of green space is diseased, there is dead wood and a large number of overgrown, damaged trees that should be replaced. Pavement materials for the road network, masts and lighting devices, small forms are not systemic, have a high percentage of wear. The park lacks clear zoning and spatial navigation. The services and entertainment presented are archaic and focused on a narrow audience represented by preschoolers with parents and teenagers.

The historical objects of the park have been completely lost. Several existing capital buildings have an acutely disharmonious appearance. Valuable spaces of green rooms are occupied by large-scale utility and storage areas, a fragment of Bograda Street opposite the building of the Theological Seminary is occupied by a car park. The object froze in the 90s - its aesthetic quality and economic model are discordant with the adjacent urban public spaces. The fence, entrances and connection with the embankment repel visitors. The park does not meet the modern needs of the townspeople and needs to be rethought and re-launched.



INFRASTRUCTURE ANALYSIS

1.4. Assessment of the infrastructural sufficiency of the competition site, including engineering support and transport services (among other things, parameters of the street and road network, laying out of tourist routes and municipal navigation).

Analysis of the key social and economic, demographical factors determining potential opportunities and restrictions of development of the competition site

Assessment of the existing transport service of the competition site as a part of the adjoining street and road network

The territory is located in the heart of the historical center of Krasnoyarsk and its transport availability is sufficient even today. The relatively high pedestrian connectivity of the center is overshadowed by long traffic light phases, U-shaped crossings, sometimes insufficient quality of pedestrian paths, local problems with water disposal, and a lack of a barrier-free environment. There are noticeable difficulties for people with limited mobility to enter the territory. Especially from the side of the embankment, where the connectivity is provided by narrow steep staircases. Entrances to the park and its connection to city streets are also barriers for parents with strollers and disabled people. The presence of a perimeter fence, turnstiles, discrete difference in coverage marks does not contribute to an increase in park attendance.

The accessibility of the territory by public transport is provided at a high level. Stops of street routes are located on Karl Marx, Lenin and Prospekt Mira streets. You can get to the territory by direct routes going from all parts of the city through the center with high traffic intensity. The "last mile" of the route from the public transport stop to the object is provided at a satisfactory level with organized controlled pedestrian crossings.

Access to the park by private transport is hampered on weekdays by the high demand for parking space. There is no such problem on weekends.

The object falls into one of the official hiking trails of the center. De facto, being located between streets in residential buildings, on the way between organized pedestrian, recreational and other public spaces, has a high potential for increasing transit pedestrian traffic.

ANALYSIS OF TARGET AUDIENCES

1.5. . Identifying of the target audiences of the visitors and assessment of correspondence of the infrastructure to their current needs.

Description of the choice and substantiation of differentiation of the needs of the target audiences of the territorytory

The analysis of target audiences revealed conflict points between cyclists, extreme sports enthusiasts, healthy lifestyles, families with babies, dog owners and other small communities. The emphasis on the recreational nature of the territory, aimed at a narrow age group, significantly limits other uses of the space. The park also has a limited selection of food service products, which mainly consists of fast food in the lowest price category.

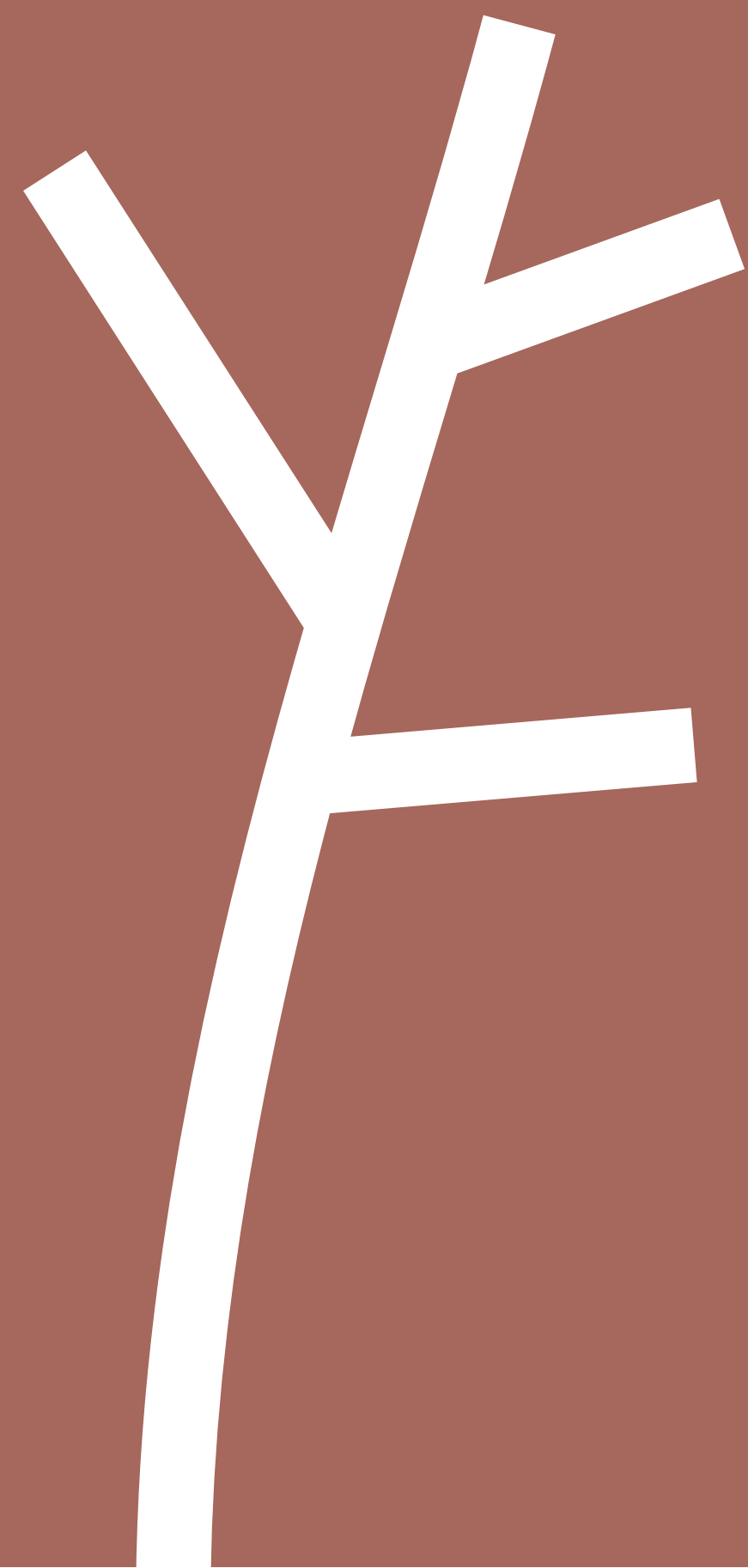
The majority of respondents noted the following negative features of the territory: low quality of attractions, high wear and tear of landscaping elements, ruined state of some locations, archaic lighting, presence of fencing, barriers for wheelchairs, lack of public toilets, lack of rooms for mother and child, access to the territory of motorized vehicles, abandoned ruined spaces inside, a large number of dead trees, sparse landscaping, bans on the use of bicycles and the inability to walk with animals. All respondents also voiced a request for natural space with high quality landscaping and improvement.

Analysis of the municipal calendar of events and newsworthy events of the competition site

The event program of the park, due to the long stay in lease from private individuals, is poorly integrated into the city event calendar. The events taking place are not regular and have an archaic character. Often times, events in the park intensify conflict between target audiences, excluding sharing. For example, filling all the alleys in the park with ice really opens up a popular form of entertainment for Krasnoyarsk residents, but excludes other ways of using it, including making it difficult to pass through ...

Systematization and conclusion on the potential for development of the competition site taking into account a set of the split-level preconditions, effective restrictions of the use, opportunities and needs

The successful localization of the object in the city, the deficit of green areas and the public spaces adjacent to the object with a high level of improvement - there are prerequisites for the successful development of the park territory, if we consider it as an element of the system of public spaces in the central part of the city.



2.

KEY IDEA OF DEVELOPMENT OF GORKY CENTRAL PARK, INCLUDING PROPOSALS ON PROVIDING INTEGRATION WITH THE ADJOINING TERRITORIES AND APPROACHES TO URBAN LAND IMPROVEMENT

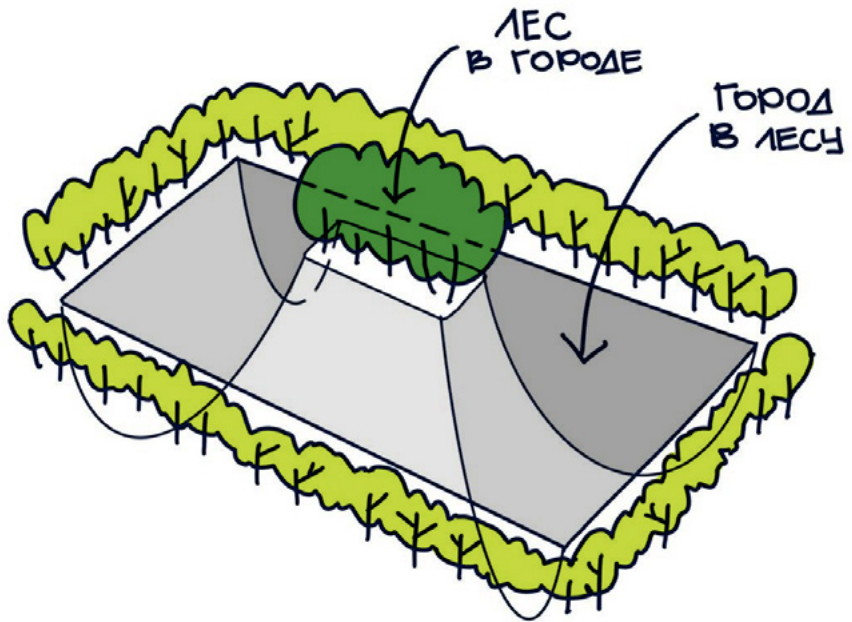
THE CONCEPT OF CITY GARDEN

2.1.. Key idea of development of Gorky Central Park generated based on the object of protection (historical and cultural and natural value of the territory), urban development context and evolution of the spatial development of the territory, identity, discovered needs of the representatives of different target audiences

Krasnoyarsk is a city in the forest that has almost lost its forest inside the city. This awareness has a great potential for development: the green infrastructure of Krasnoyarsk is intended to become a "new nature" within the urban fabric - a nature that is accessible to citizens. This approach will help to preserve the Siberian nature of the city, reveal its panoramas and connect green spaces with a united network of convenient routes.

In the concept of "new urban nature", the City Garden takes on a special meaning. This is not just a key element of the structure of the green spaces of the historical city center. This is their genetic code - a place that still stores fragments of the relict Yenisei forest and will become the starting point of the new Krasnoyarsk, which is permeated by nature.

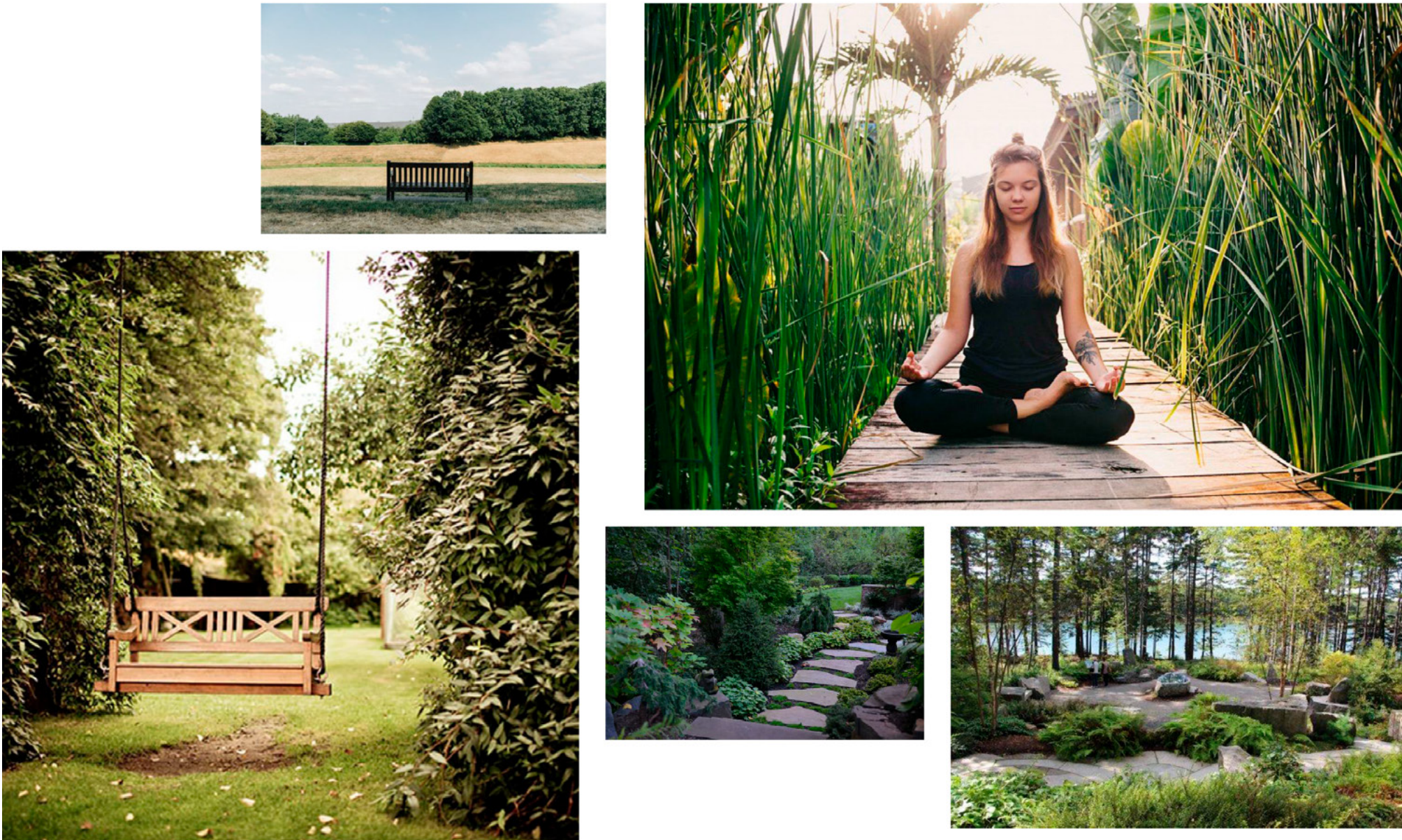
To bring back the forest to the city, you need to remove all dissonant elements from the park, take out unfamiliar functions beyond its borders. The meaning of the Park becomes "discharge of meanings". We create City Garden as a form, trying not to saturate its excess content, so everyone can fill this form with their own meaning: to be with loved ones, to be in virtual contact with children, to be alone with their own thoughts and emotions, to be in the center of life, to be... Rethinking of City Garden is based on three main postulates – the escapism, the memory of place and photogenicity.



The escapism

In the City garden, we return Krasnoyarsk citizens to silence, allowing them to disconnect from the city and find themselves in nature, without leaving city borders. The city garden becomes a place where people become thinkers and contemplators, find the peace of mind. City garden reduces the load of the human senses and attention.

- We create maximal silence by cutting off the Park from the city.
- We make the Park extremely natural: the City Garden provides a busy person with contact with real nature, allowing them to forget that they are in the city center.
- We pay attention to the "contemplative potential " of landscapes.
- We divide noisy and children's locations and quiet zones.
- We remove visual and advertising garbage from the field of view.
- We create nooks and crannies.



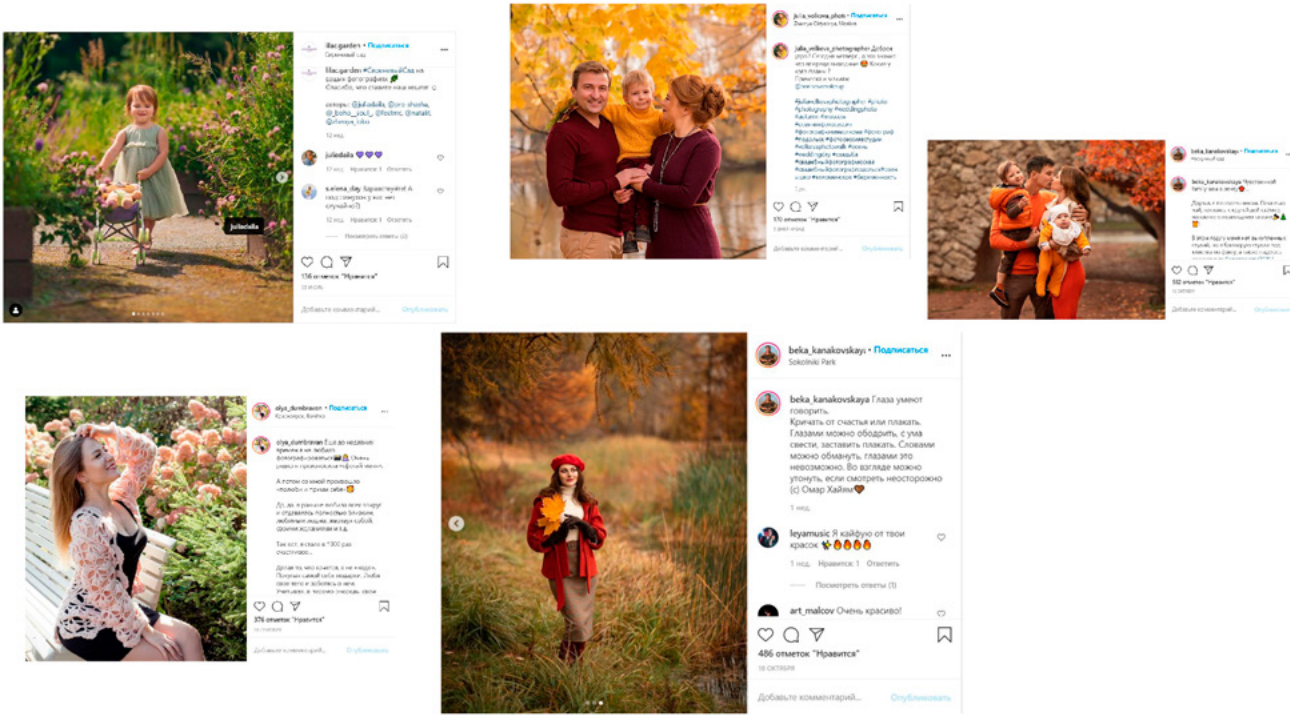
The memory of place

Designed as a modern public space, the City Garden remembers the historical epochs it witnessed. We do not build a mindless new model – we organically weave history into modernity, supporting the sense of identity of Krasnoyarsk residents. In a metaphorical and partly literal sense, the City Garden is a journey into the past. This allows, in particular, to combine the context of the Park with the historical quarter bordering it – and strengthen the power of perception of both.



The photogenicity

Gorky Park remained not only in the memory of citizens, but also in thousands of family photos. We turn the nature of the City Garden on "working side" to the photographer. And, thus, we turn it into the main decoration of Krasnoyarsk citizens' life – a background on which they look happy, joyful or peaceful. A background that will outlive generations, left in photos and Instagram posts.



NOT,



YES..



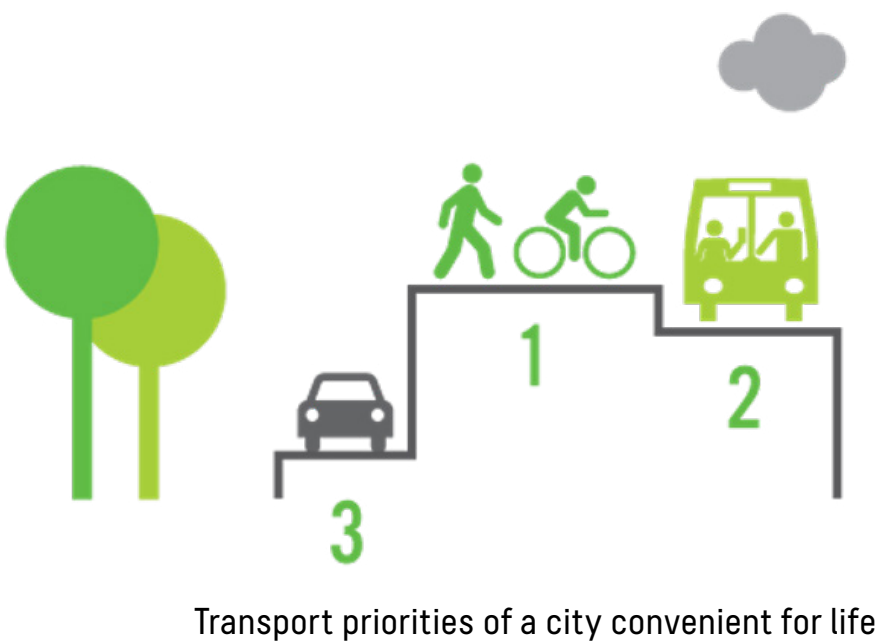
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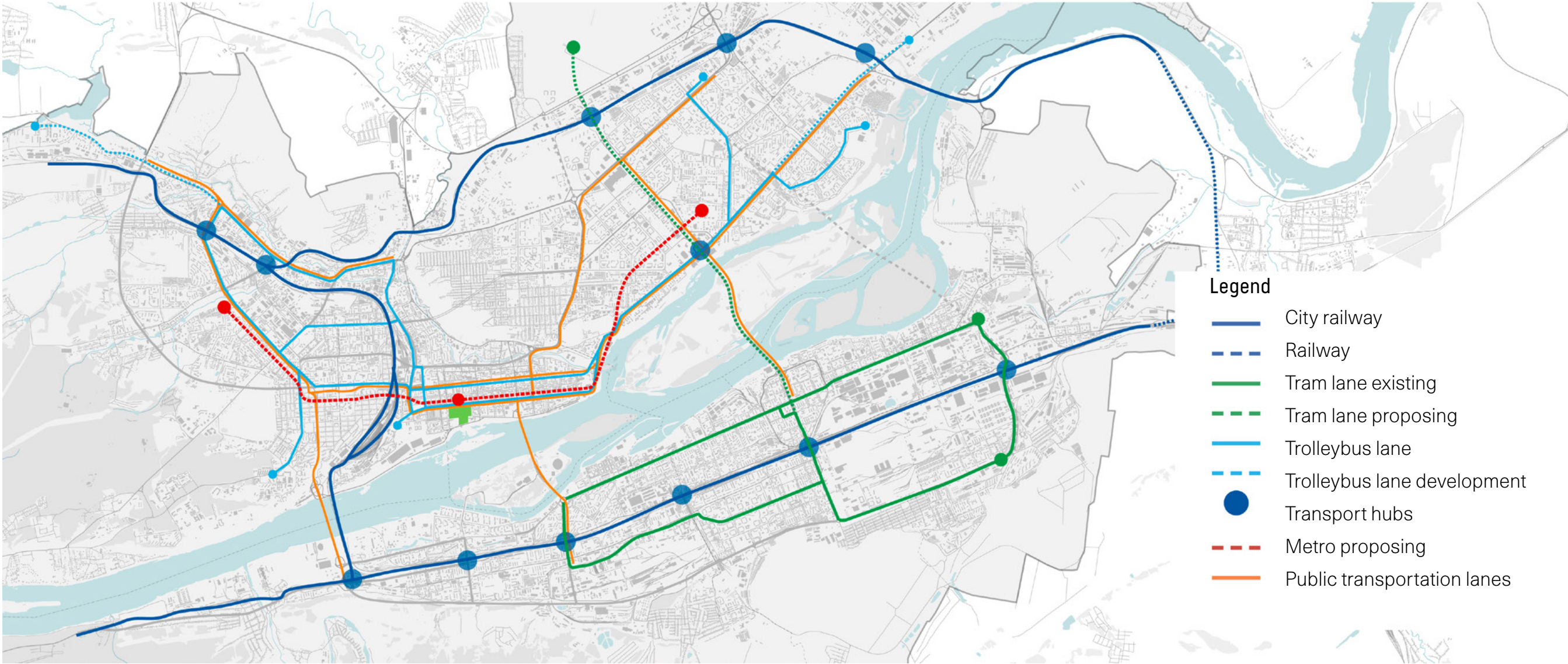
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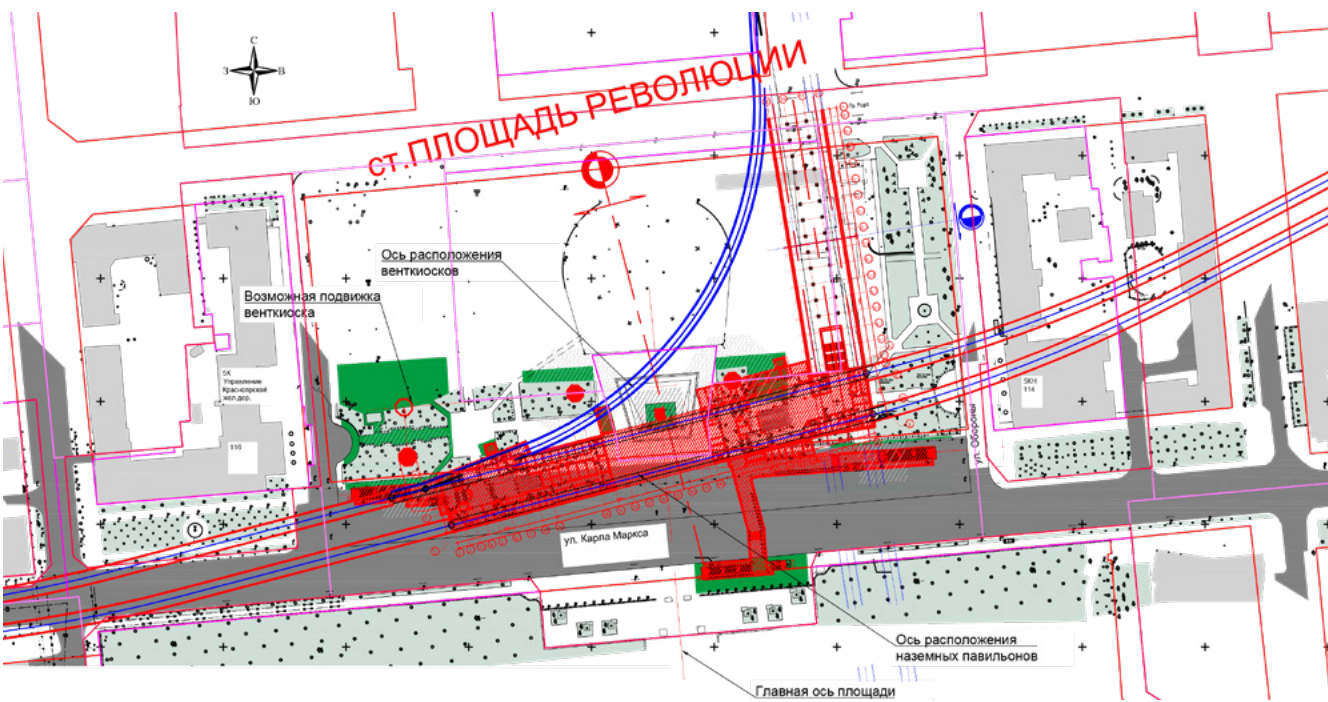
External transport



The infrastructural transformations of Krasnoyarsk for its 400th anniversary will have a positive effect on the availability of the City Garden and on the quality of its transport services. The historical center of the city should be developed along the path of introducing the transport priorities of a city convenient for life, for which it is necessary to reduce the transit function of the center for personal transport, moving it to the periphery in a closed transport ring. Public transport, on the other hand, should strengthen the transit function of the center, which is ensured by the development of the railway ring and the construction of the subway. Pedestrian connectivity, accessibility and a barrier-free environment should provide a multiplier effect for the public space system, the heart of which is the City Garden.



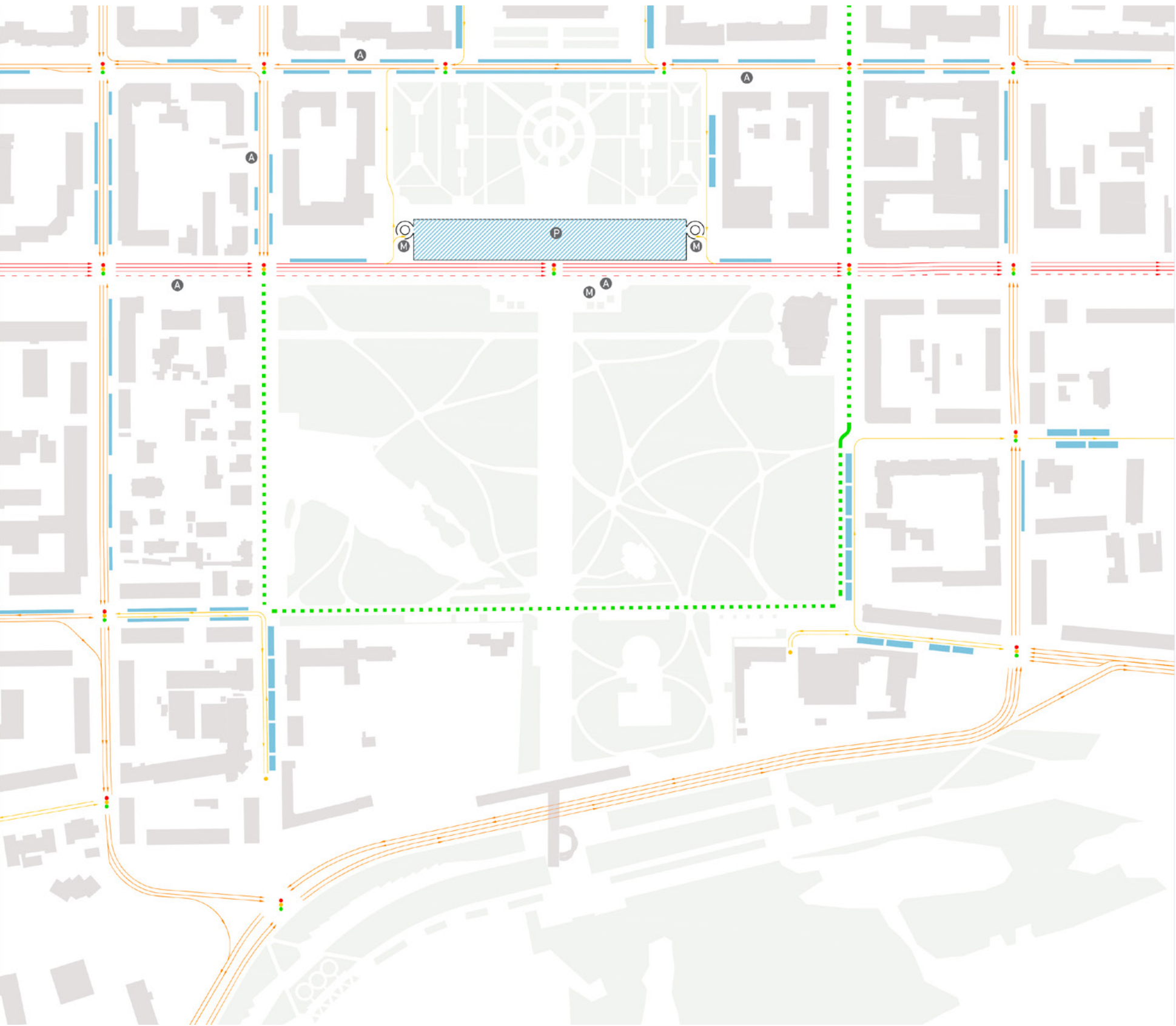
scheme of the planned transport frame
(including specifying specific activities
on the development of transport infrastructure)



Planned location diagram
metro station "Ploschad Revolyutsii"

Transport service of the territory

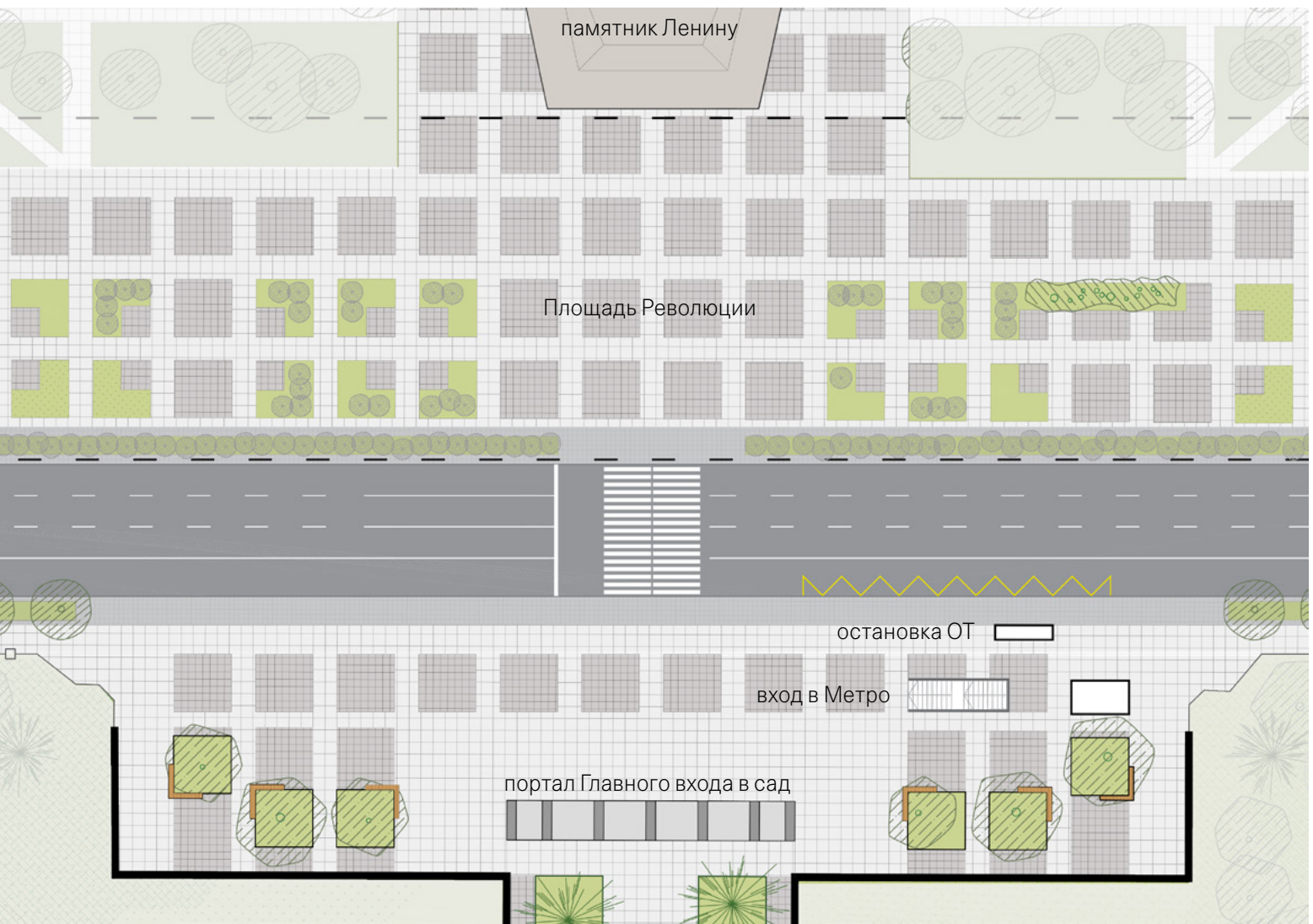
Conceptual scheme of transport and engineering support of the competition site



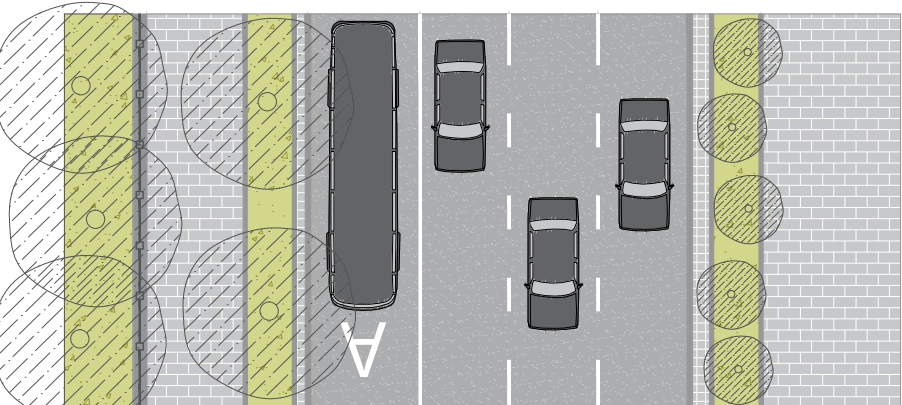
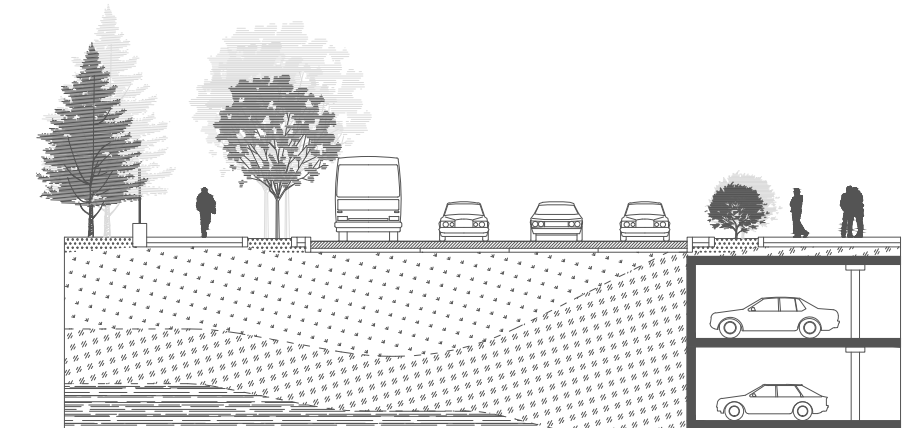
Legend

- Urban street
- Dedicated OT lane
- District street
- Local street
- Pedestrianized street
- Parking
- Regulated intersection or transition
- Land transport stop
- Metro entrances
- Underground parking

Parking on Revolution square is no longer able to cope with the growing demand. In the logic of minimizing the parking space along the streets and the appearance of the underground, it is advisable to consider the possibility of creating an interchange station with multi-level underground parking under the square, integrated with the metro lobbies and exits on both sides of Karl Marx street, with the mandatory preservation of above-ground controlled pedestrians crossings. Revolution square should become a space free of vehicles. Its program and design can be reinterpreted through an international architectural competition. It is advisable to move the ground public transport stop closer to the outpost of the main entrance to the City Garden.



Fragment of the plan of Karl Marx street in the area of Revolution square



Fragment of the plan and profile of st. Karl Marx along the City Garden

The main axis

proposals on adaptation of the cultural heritage site to the use for the recreational purposes. и обоснование приемственного развития конкурсной территории

The frame of the City Garden is formed by two perpendicular paths. The first is the central alley that runs through the main entrance from Revolution square to the bank of the Yenisei river, across the main streets of the center. It is part of the pedestrian and recreational axis, on which are strung Pokrovsky Park, Yudinsky garden, embankment of Kacha, Surikov square, boulevards along the Oborony street and per. Ryauzovskaya, Revolution square, City Garden, Centralnaya embankment, islands Posadny and Otdyha, Yaryginskaya embankment.

The authors of this tender offer agree with previous generations of Krasnoyarsk architects and planners that the implementation and strengthening of the role of this axis, increasing connectivity, permeability, quality of pedestrian space and removing barriers will have a positive impact on the attractiveness of the City Garden and the image of the city as a whole.



Sadovaya street

The second important urban path that runs through the garden is a fragment of Bograd street (historically - Sadovaya street). The importance of the path from the main railway station to Teatralnaya square, which runs parallel to the city's bustling thoroughfares, will increase many times in the coming years. The appearance of the residential area "Novoostrovsky" on the site of the former combine plant will attract more than 30 thousand Krasnoyarsk residents to this part of the city. Bograd street will turn from an unsightly alley into a full-fledged street of the historical center.

A fragment of Bograd street, which lies within the Park's borders, picks up urban transit and becomes the main center of various activities. Eateries, cafes and restaurants will be concentrated here. Fairs and festivals will be held here. We will bring here some carousels, a shooting gallery, a room of fear and a room of laughter from the depths of the Garden. We will place equipment rental, a children's gardening school, souvenir shops, a tourist information center, food trucks and terraces with canopies and tables. Services, toilets, and mother and child rooms will be located here. This year-round shopping and pedestrian street will become the main income generator of the City garden – and the key to its multi-genre flexibility, readiness to provide a platform for any event and any small urban community.



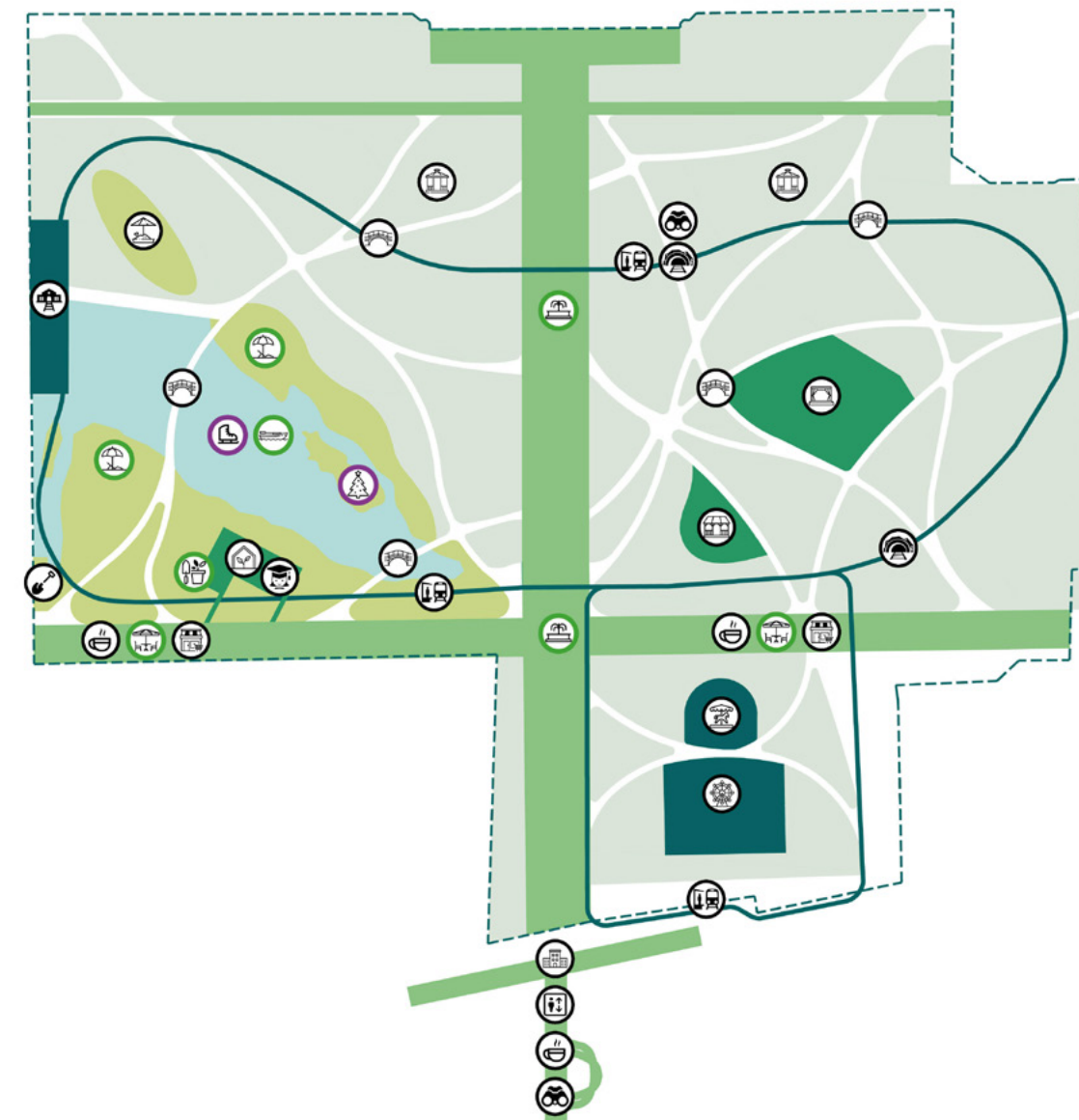
Visualization of Sadovaya street with a view of the Seminary building

Cultural event-related programming

2.3. Proposals on cultural event-related programming of Gorky Central

Park in different seasons

Eclecticism, multi-genre character is characteristic not only of small architectural forms, but also of the eventful content of the City Garden. By reducing the conceptual overload of the park, we make its space flexible - and open to any urban community.



Seasonal use



Instead of giving each small group of visitors - retirees, skaters or, say, dog breeders - their own site, not in demand by all other communities, we create unified, accessible and inclusive spaces.

The multifunctionality of the sites allows the City Garden to follow the main trend of event marketing in the city - permanence. It becomes a place where interesting things happen all the time - so that the townspeople may not follow the poster, but simply come to the park and become participants in one or several events at once.

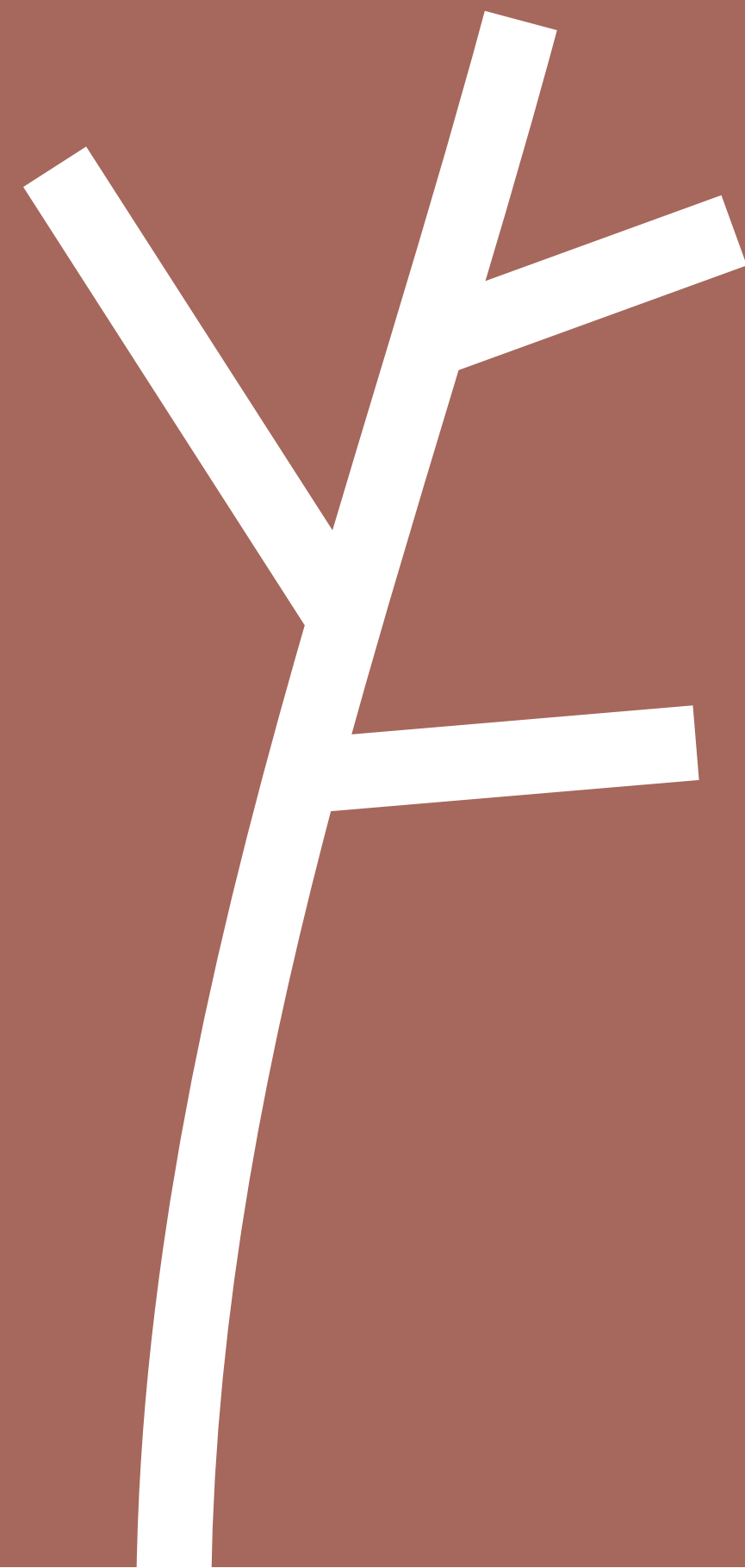
From this point of view, the main location is on the street. Sadovaya. Food and entertainment, exhibitions of paintings and street art, art objects and animation, festivals and fairs create on this street the feeling of a holiday that is always with you.

All year round, every day and in any weather, you can work in a coworking space with a view of the Yenisei, attend a school for young naturalists or ride a children's railroad. On weekdays and on weekends, there is an excursion and educational program, where guided groups of visitors through the prism of the history of the city get to know the garden from a completely new side. Catering establishments and most of the entertainment facilities operate all year round. In winter, an ice rink is poured on the pond, and slides and snow figures appear at the main intersection.

Table with the indication of the key functional planning zones meeting the needs of the target audiences

Key functional planning zones	Casual and event leisure				
	April - October				
	Families with children / mothers with strollers / Accompanied children / Unaccompanied children (10-14 years old) / Teenagers 14-17 years old	Youth 18-21 years old / Adults over 21	Athletes	Dog owners	Retirees
Main alley and fountains, inside the garden	<ul style="list-style-type: none">— Educational excursions in the city garden;— Walking;— Sledding, downhill skiing;— Cross-country skiing (tournaments for children);— Fun starts;— Exhibition of snow and ice figures;— Ferris wheel and carousel rides;— Snow and ice molding.	<ul style="list-style-type: none">— Educational excursions in the city garden;— Nordic walking;— Walking;— Exhibition of snow and ice figures;— Riding the Ferris wheel and carousels.	<ul style="list-style-type: none">— Nordic walking;— Walking;— Run.		<ul style="list-style-type: none">— Nordic walking;— Educational excursions in the city garden;— Walking;— Riding a Ferris wheel.
Children's railway, train station, railway stations	<ul style="list-style-type: none">— Riding on the children's railway;— Visit to the children's railway museum;— A viewing platform on the grotto.	<ul style="list-style-type: none">— Riding on the children's railway;— Visit to the children's railway museum;— A viewing platform on the grotto.			<ul style="list-style-type: none">— Riding on the children's railway;— Visit to the children's railway museum;— A viewing platform on the grotto.
st. Sadovaya (st.Bograd)	<ul style="list-style-type: none">— Developing and educational activities in indoor pavilions;— Food markets;— Christmas markets, New Year's festivities;— Craft fairs;— Exhibitions, souvenir shops;— Carnival celebration;— Carousels, shooting gallery, dread room and laughter room;— Equipment rental;— Festivals;— Exhibition of snow and ice figures.	<ul style="list-style-type: none">— Developing and educational activities in indoor pavilions;— Food markets, festivals;— Christmas markets, New Year's festivities;— Craft fairs;— Exhibitions, souvenir shops;— Carnival celebration;— Carousels, shooting gallery, dread room and laughter room;— Equipment rental;— New Year's festivities;— Exhibition of snow and ice figures.	<ul style="list-style-type: none">— Nordic walking;— Walking;— Run.	<ul style="list-style-type: none">— Walking.	<ul style="list-style-type: none">— Food markets, festivals;— Christmas markets, New Year festivities, Carnival celebrations;— Craft fairs;— Exhibitions, souvenir shops;— Carousels, shooting gallery, dread room and laughter room;— Equipment rental;— Exhibition of snow and ice figures;— Classes and master classes for retirees held in a closed pavilion (handicrafts, cooking, etc.).
Пруд, зелёный пляж	<ul style="list-style-type: none">— Skating;— Christmas tree;— Children's program for the New Year and Christmas;— Light shows.	<ul style="list-style-type: none">— Skating;— Christmas tree;— Light shows.	<ul style="list-style-type: none">— Skating;— Nordic walking;— Walking;— Run.	<ul style="list-style-type: none">— Christmas tree;— Light shows.	<ul style="list-style-type: none">— Skating;— Christmas tree;— Light shows.
Children's school for young naturalists and sensitive garden, greenhouse	<ul style="list-style-type: none">— Classes at the school for young naturalists;— Classes in the greenhouse;— Classes in modeling from snow and ice.				
Playground	<ul style="list-style-type: none">— Sledding;— Downhill skiing;— Snow and ice molding;— Snowball fight.				
Stage and amphitheater, veranda	<ul style="list-style-type: none">— Christmas markets;— Maslenitsa;— Festivals;— Children's program for the New Year and Christmas - concerts, theatrical performances.	<ul style="list-style-type: none">— Christmas markets;— Maslenitsa;— Festivals;— New Year and Christmas program - concerts, theater performances.		<ul style="list-style-type: none">— Walking.	<ul style="list-style-type: none">— Christmas markets;— Maslenitsa;— Festivals;— New Year and Christmas program - entertainment events, theater performances.
Bridge with an observation deck, commercial property	<ul style="list-style-type: none">— Classes and master classes;— Coworking;— The shops;— Cafe, etc.	<ul style="list-style-type: none">— Classes and master classes;— Coworking;— The shops;— Cafe, etc.		<ul style="list-style-type: none">— The shops;— Cafe, etc.	<ul style="list-style-type: none">— Classes and master classes for seniors, (handicrafts, cooking, etc.);— Coworking;— The shops;— Cafe, etc.

Key functional planning zones	Casual and event leisure				
	April - October				
	Families with children / mothers with strollers / Accompanied children / Unaccompanied children (10-14 years old) / Teenagers 14-17 years old	Youth 18-21 years old / Adults over 21	Athletes	Dog owners	Retirees
Main alley and fountains, inside the garden	<ul style="list-style-type: none">— Educational excursions in the city garden;— Walking;— Fun starts;— Riding the Ferris wheel and carousels.	<ul style="list-style-type: none">— Educational excursions in the city garden;— Walking;— Fun starts;— Riding the Ferris wheel and carousels.	<ul style="list-style-type: none">— Nordic walking;— Walking;— Run.		<ul style="list-style-type: none">— Nordic walking;— Educational excursions in the city garden;— Walking;— Riding a Ferris wheel.
Children's railway, train station, railway stations	<ul style="list-style-type: none">— Riding on the children's railway;— Visit to the children's railway museum;— A viewing platform on the grotto.	<ul style="list-style-type: none">— Riding on the children's railway;— Visit to the children's railway museum;— A viewing platform on the grotto.			<ul style="list-style-type: none">— Riding on the children's railway;— Visit to the children's railway museum;— A viewing platform on the grotto.
st. Sadovaya (st.Bograd)	<ul style="list-style-type: none">— Developing and educational activities in covered pavilions;— Food markets and festivals;— Summer craft fairs;— Exhibitions, souvenir shops;— Carousels, shooting gallery, fear room and laughter room;— Equipment rental;— Children's and family music / theater festivals, carnivals;— Street theater festivals;— Citywide holidays.	<ul style="list-style-type: none">— Developing and educational activities in covered pavilions;— Food markets and festivals;— Summer craft fairs;— Exhibitions, souvenir shops;— Carousels, shooting gallery, fear room and laughter room;— Equipment rental;— Children's and family music / theater festivals, carnivals;— Street theater festivals;— Citywide holidays.	<ul style="list-style-type: none">— Nordic walking;— Walking;— Run.	<ul style="list-style-type: none">— Walking;	<ul style="list-style-type: none">— Developing and educational activities in covered pavilions;— Food markets and festivals;— Summer craft fairs;— Exhibitions, souvenir shops;— Carousels, shooting gallery, fear room and laughter room;— Equipment rental;— Children's and family music / theater festivals, carnivals;— Street theater festivals;— Citywide holidays.
Pond, green beach	<ul style="list-style-type: none">— Boating;— Picnics on the green beach;— Outdoor training in various sports on the green beach;— Yoga on the grass;— Holidays dedicated to healthy lifestyle;— Summer sports competitions;— Dance flash mobs;— Light shows;— Summer open-air cinema.	<ul style="list-style-type: none">— Boating;— Picnics on the green beach;— Outdoor training in various sports on the green beach;— Yoga on the grass;— Holidays dedicated to healthy lifestyle;— Summer sports competitions;— Dance flash mobs;— Citywide holidays;— Light shows;— Summer open-air cinema.	<ul style="list-style-type: none">— Holidays dedicated to healthy lifestyle;— Summer sports competitions;— Yoga on the grass;— Dance flash mobs.		<ul style="list-style-type: none">— Boating;— Picnics on the green beach, yoga on the grass;— Holidays dedicated to a healthy lifestyle;— Summer sports competitions;— Nordic walking;— Group sports for retirees: morning exercises, yoga, aerobics, outdoor exercise equipment, etc. Competitions in various sports for older people;— Citywide holidays;— Light shows;— Summer open-air cinema.
Children's school for young naturalists and sensitive garden, greenhouse	<ul style="list-style-type: none">— Classes at the school for young naturalists;— Classes in the city garden and greenhouse.				
Playground	<ul style="list-style-type: none">— Fun starts;— Games with water and sand;— Slides, climbing nets, trampolines.				
Stage and amphitheater, veranda	<ul style="list-style-type: none">— Festivals;— Children's parties;— Summer lecture hall;— Summer open-air cinema.	<ul style="list-style-type: none">— Festivals;— Children's parties;— Summer lecture hall;— Summer open-air cinema.	<ul style="list-style-type: none">— Nordic walking;— Walking;— Run.	<ul style="list-style-type: none">— Walking	<ul style="list-style-type: none">— Literary festivals / poetry readings;— Festivals;— Summer lecture hall.— Dance flash mobs;— Summer open-air cinema.
Bridge with an observation deck, commercial property	<ul style="list-style-type: none">— Classes and master classes;— Coworking;— The shops;— Cafe, etc.			<ul style="list-style-type: none">— Walking	



3.

CONCEPT OF THE LANDSCAPE-ARCHITECTURAL
AND FUNCTIONAL AND LAYOUT ARRANGEMENT OF
THE TERRITORY

MASTERPLAN

3.1. The functional and layout arrangement of the territory (taking into account requirements to carrying out of activities and requirements to the urban development regulations within the boundaries of the competition site of the place of interest "Site of memory associated with history and culture of the city").



The masterplan explication

1. main entrance to the City Garden

2. secondary entrance to the City Garden

3. main alley

4. secondary alley

5. places for sculptures' installation on a secondary alley

6. fountains on a main alley

7. existing children's railway

8. new line of children's railway

9. main children's railway station

10. Sadovaya station

11. Station in forest, grotto and observation deck

12. Ferris wheel station

13. Sadovaya st. (Bograda st.)

14. the rambles

15. the pond

16. pedestrian bridges across the pond

17. a playground

18. a lawn
19. greenhouse, school of young naturalists, sensitive garden

20. maintainance outbuilding

21. bridge with observation deck

22. built-in commercial real estate

23. Ferris wheel

24. summer terrace

25. a carousel

26. ticket office

27. summer stage

28. Chinese gazebo

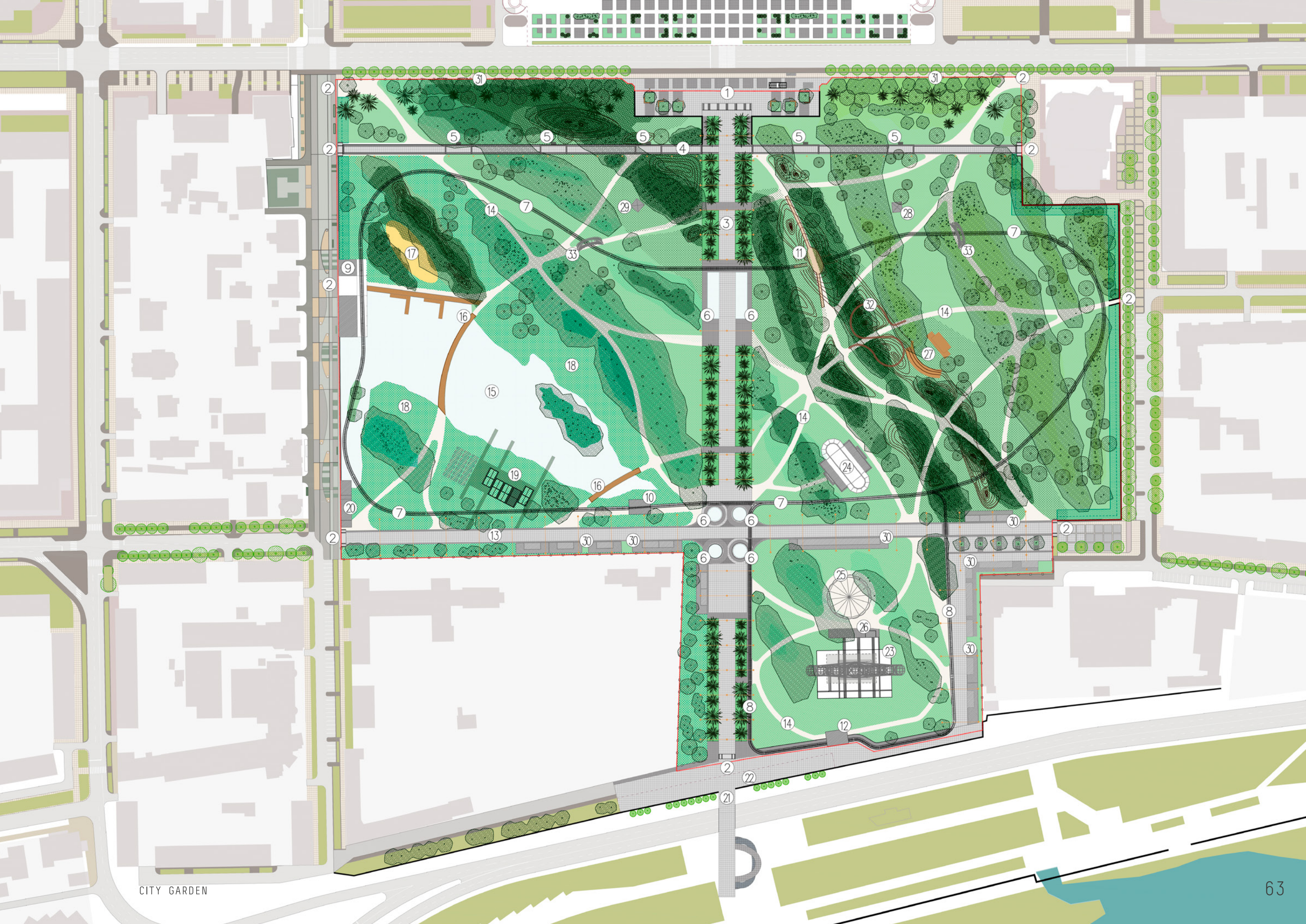
29. Arbour in Russian style

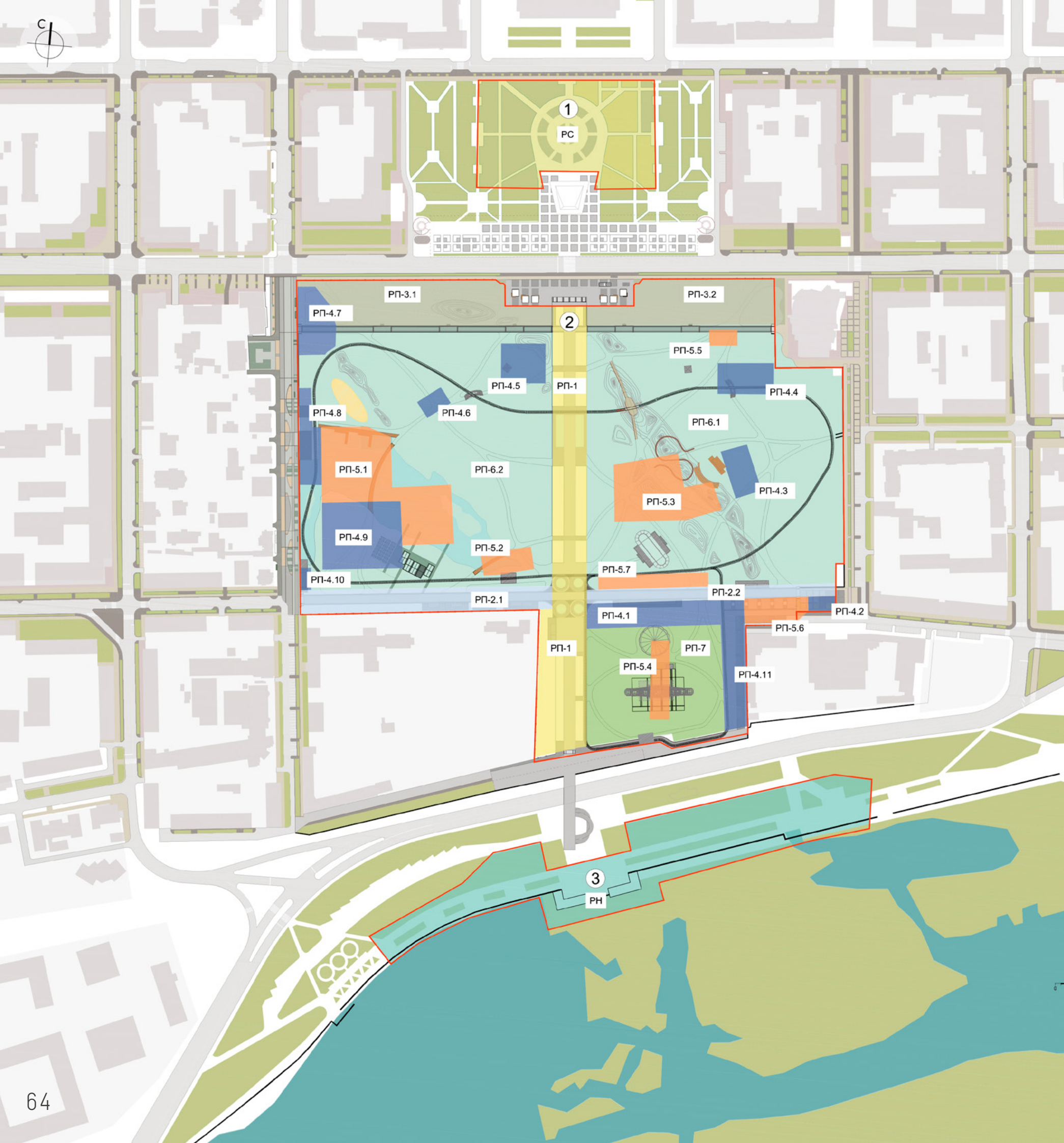
30. non-stationary retail items

31. preserved historical fence on the side of Karl Marx street

32. suspended pedestrian bridge

33. pedestrian bridges over the railway





3.2. Offers on infrastructural filling of allocated zones

Diagram of the historical and architectural value of the competition site with the differentiation of the land use regimes and requirements for the urban development regulations within the boundaries of the cultural heritage site”

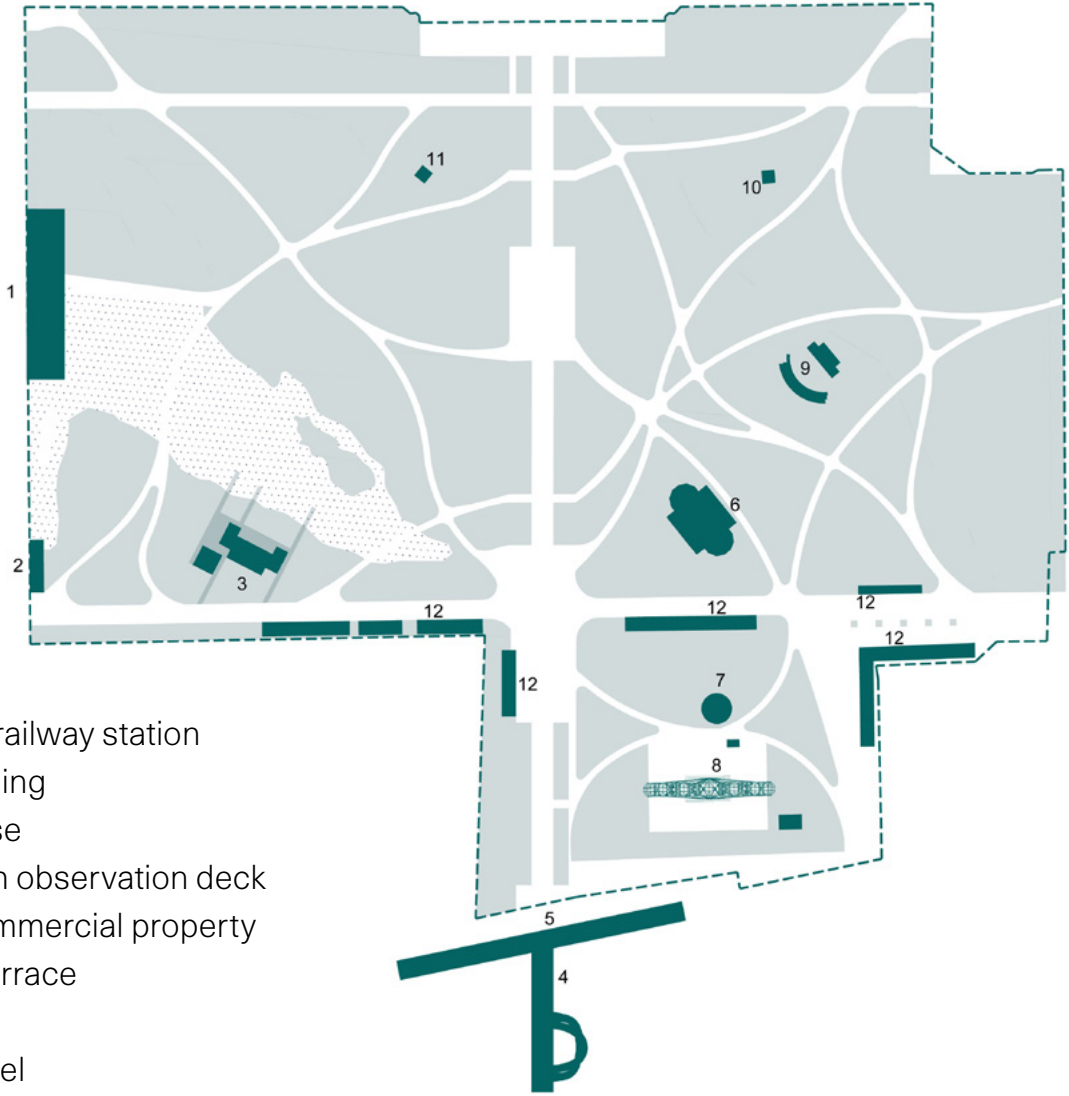
- Границы территории ОКН регионального значения - достопримечательного места "Памятное место, связанное с историей и культурой города"
- ① Участок 1. Сквер
- ② Участок 2. Парк
- ③ Участок 3. Набережная
- Детская железная дорога
- Зоны действия режимов
- Режим РП-1. Центральная аллея
- Режим РП-2. Садовая улица
- Режим РП-3. Санитарная (зеленая) зона
- Режим РП-4. ОКС
- Режим РП-5. Атракционы
- Режим РП-6. Городской сад
- Режим РП-7. Новый парк
- Режим РН. Набережная
- Режим РС. Сквер

Conceptual scheme of engineering support of the competition site

Objects	Area, m2	List of necessary engineering, technical and other measures
1. Station of the children's railway	280	— Dismantling of existing stone one-story buildings; — connection to utilities: — power supply, — heating, — water supply, — water disposal.
2. Service building	150	— Dismantling of existing stone one-story buildings; — connection to utilities: — power supply, — heating, — water supply, — water disposal.
3. Greenhouse	330	— Dismantling of existing stone one-story buildings; — connection to utilities: — power supply, — heating, — water supply, — water disposal.
4. Bridge with an observation deck	580	Dismantling of existing stone structures.
5. Built-in commercial property	7 520	— Dismantling of existing stone one-story buildings; — connection to utilities: — power supply, — heating, — water supply, — water disposal.
6. Summer veranda	650	—
7. Carousel	570	— Connection to utilities: — power supply.
8. Ferris wheel	1 400*	— Dismantling the existing Ferris wheel; — connection to utilities: — power supply.
9. Summer stage with an amphitheater	270	— Connection to utilities: — power supply.
10. Chinese gazebo	36	—
11. Arbor in Russian style	40	—
12. Non-stationary shopping facilities on the street Sadovaya	960	— Dismantling of existing non-stationary shopping facilities; — connection to utilities: — power supply, — heating, — water supply, — water disposal.

*the area of the platform for the installation of the Ferris wheel is indicated

Object placement scheme:

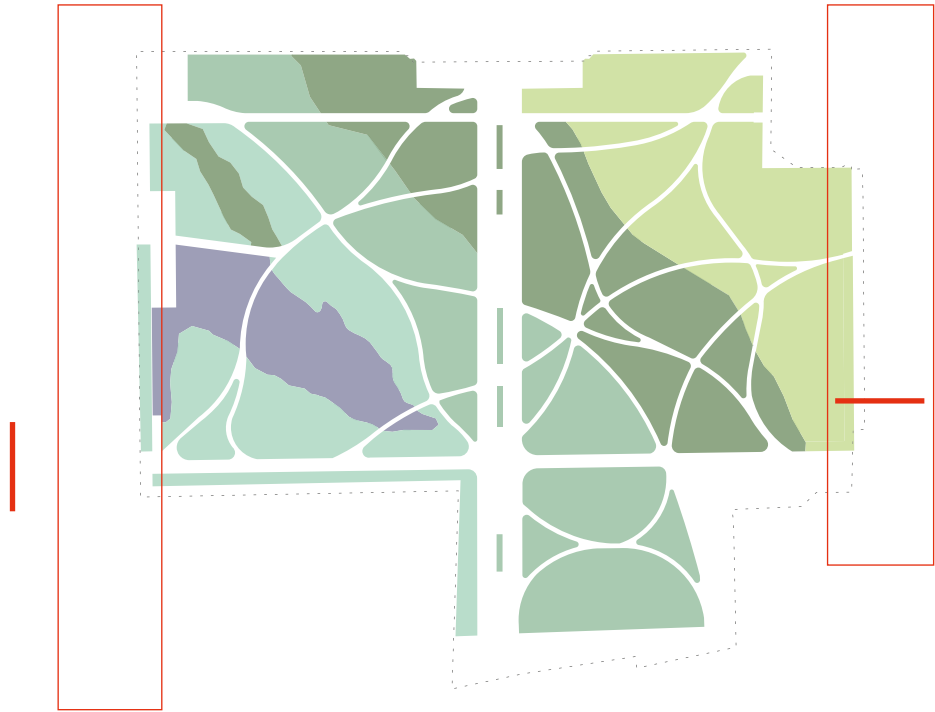


- 1. children's railway station
- 2. utility building
- 3. greenhouse
- 4. bridge with observation deck
- 5. built-in commercial property
- 6. summer terrace
- 7. carousel
- 8. Ferris wheel
- 9. summer scene
- 10. chinese gazebo
- 11. gazebo in Russian style
- 12. non-stationary shopping facilities

assessment of the increase in the load on the engineering system:

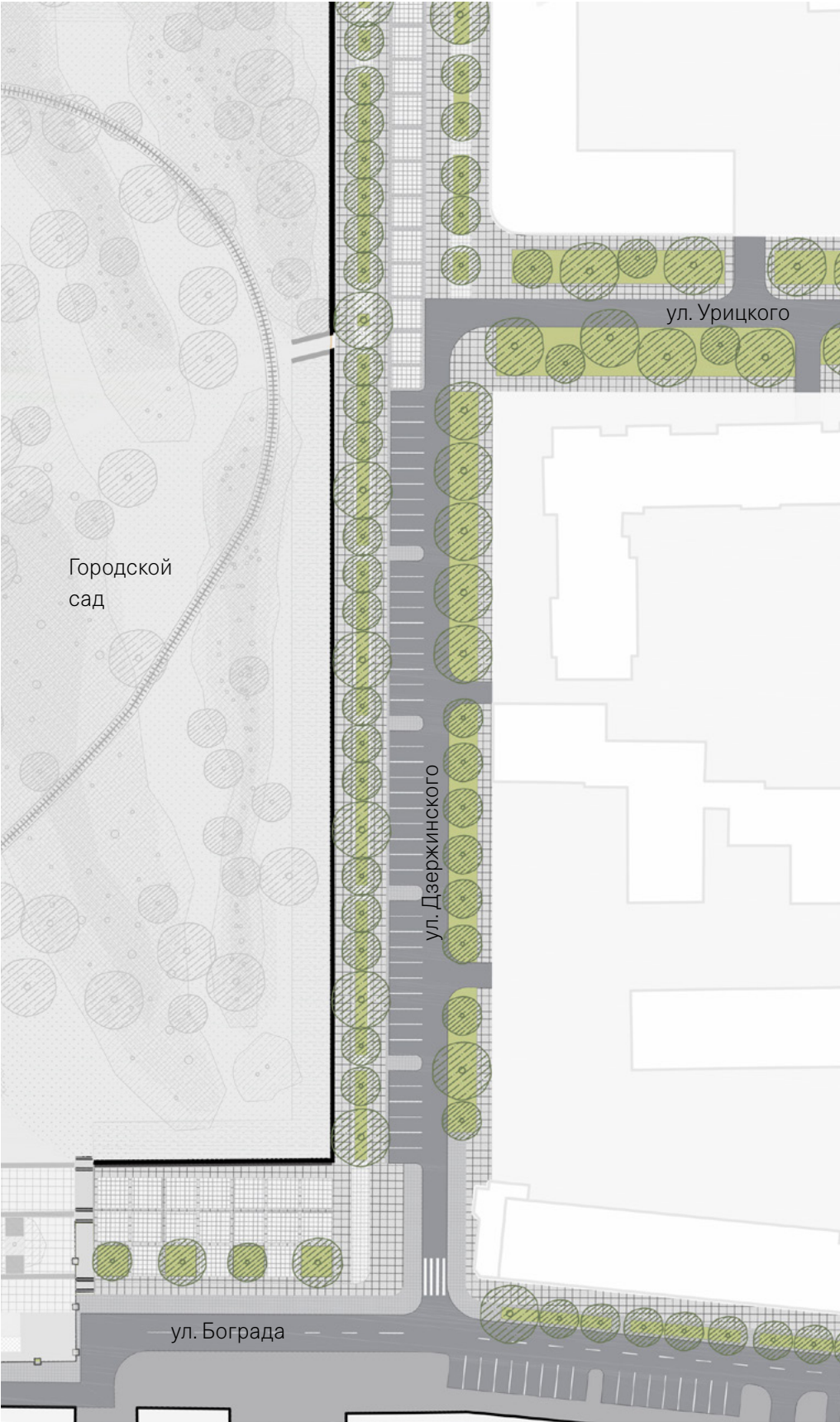
A general decrease in the number of objects within the boundaries of the garden, as well as the use of energy efficient systems, will not require an increase in the capacity of existing engineering systems. Estimation of costs for the creation and reconstruction of facilities takes into account the costs of engineering support and is presented in Section 4.

Gorky and Dzerzhinskiy streets



Gorky and Dzerzhinskiy streets, which embrace the City Garden, have already been significantly transformed and humanized in recent years. The lack of transit transport, restored architectural monuments and the comfortable scale of development of these streets expand the boundaries of the City Garden, creating a buffer for a smooth transition from silence to urban activity.

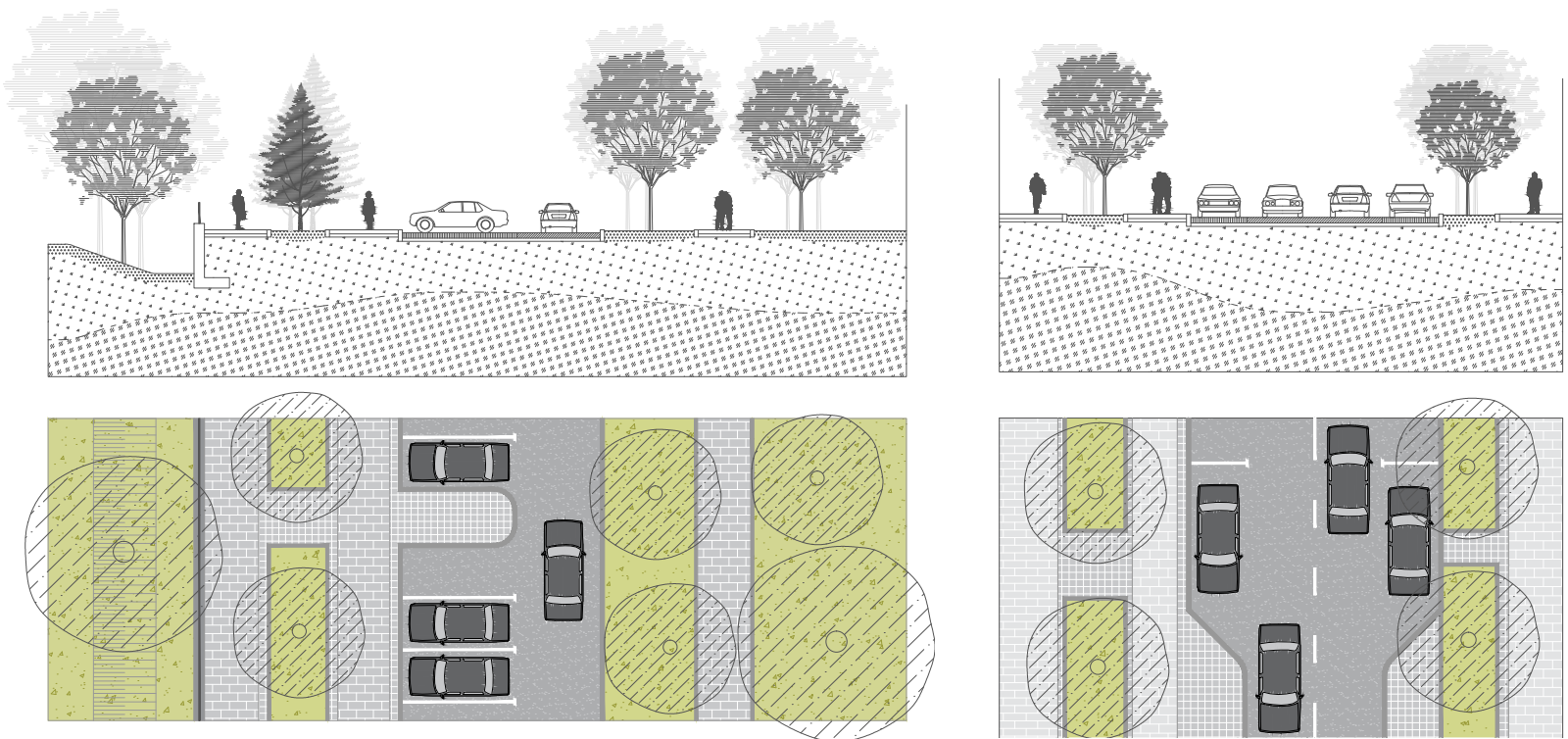
Work on the harmonization of these streets should continue, as well as work with Revolution square and Karl Marx street. Our offer reflects fragments, sections, details and nodes that can increase the attractiveness of the streets adjacent to the Garden.



Space organization on Dzerzhinskiy street



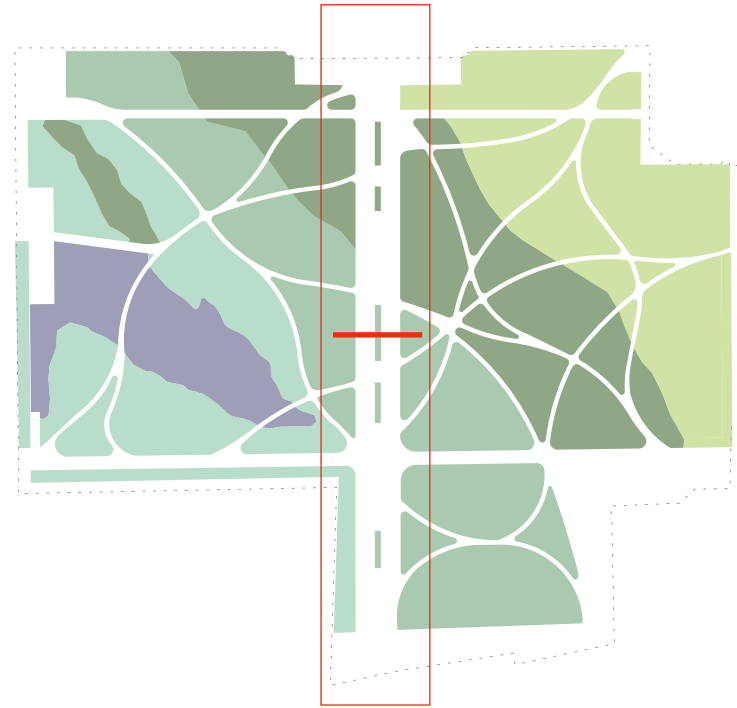
Space organization on Bograda, Dekabristov, Gorkogo st.



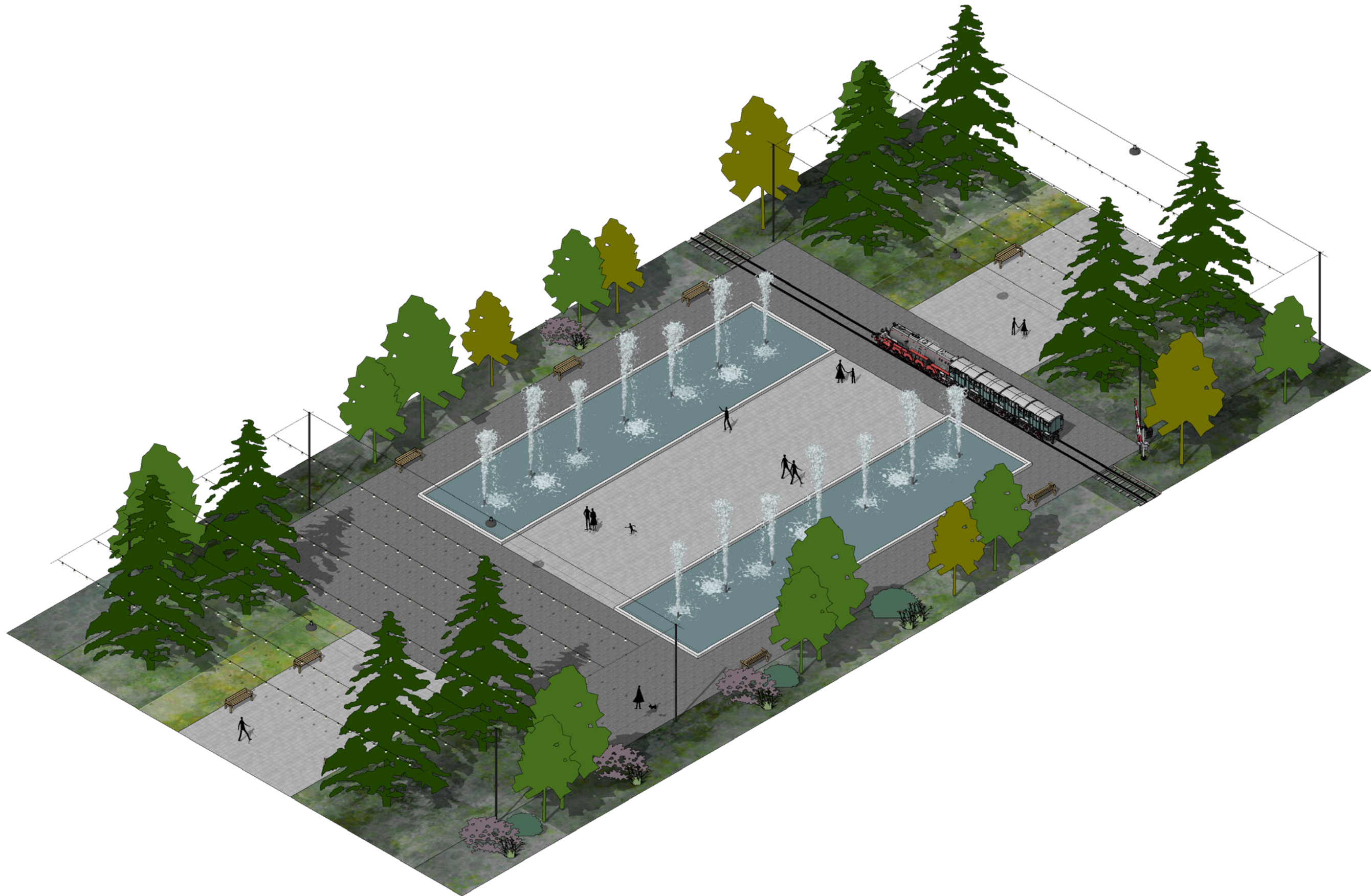
Fragment of the plan and profile of Dzerzhinskiy street

Fragment of the plan and profile of Bograda street

Central alley



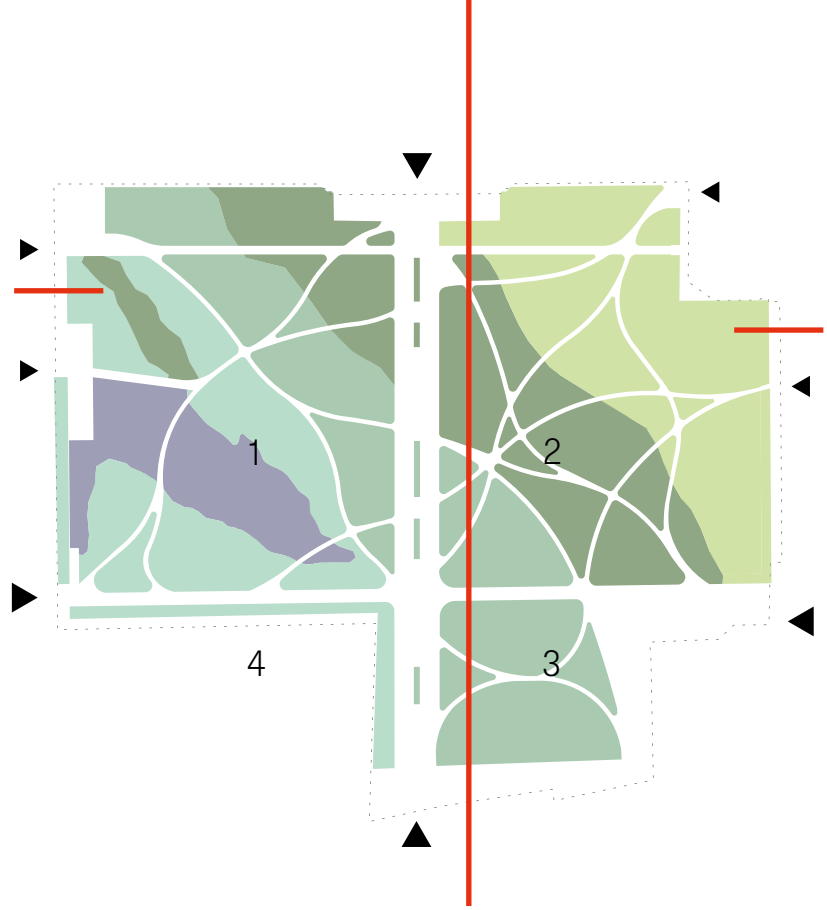
The width of the Central alley in its current form is excessive. This monotonous front corridor echoes the ensemble of Revolution square, but it is dissonant in scale with the City garden itself. Panoramas that open from the Central alley to the south and north have lost their ideological meaning and have undergone significant deformation since the 1970s, when the red facade of a residential building was not yet visible from behind the building of the regional committee, and the right bank was not built up with a row of residential high-rises. The authors believe that the alley should be given a more natural character: increase the species diversity of trees and bring its scale closer to other alleys of the Park, excluding duplicates in some places.



Inside the Garden

substantiation of the successive development of the competitive territory

The garden is divided by transit routes into 4 parts – 3 green rooms and the territory of the Seminary (currently a Military hospital), which should be integrated with the garden in the future. Rooms have their own specifics. The Western and Eastern sections are separated from Marx street by a historical fence and a dense wall of evergreen trees that create a noise buffer together with other plants. The terraced landscaping and geoplastics will help reduce noise pressure and create a comfortable acoustic picture inside the Park. Entering the garden through the main entrance should give the user a new sensory experience - an instant switch when taking a step out of the city noise brings you into the natural silence.

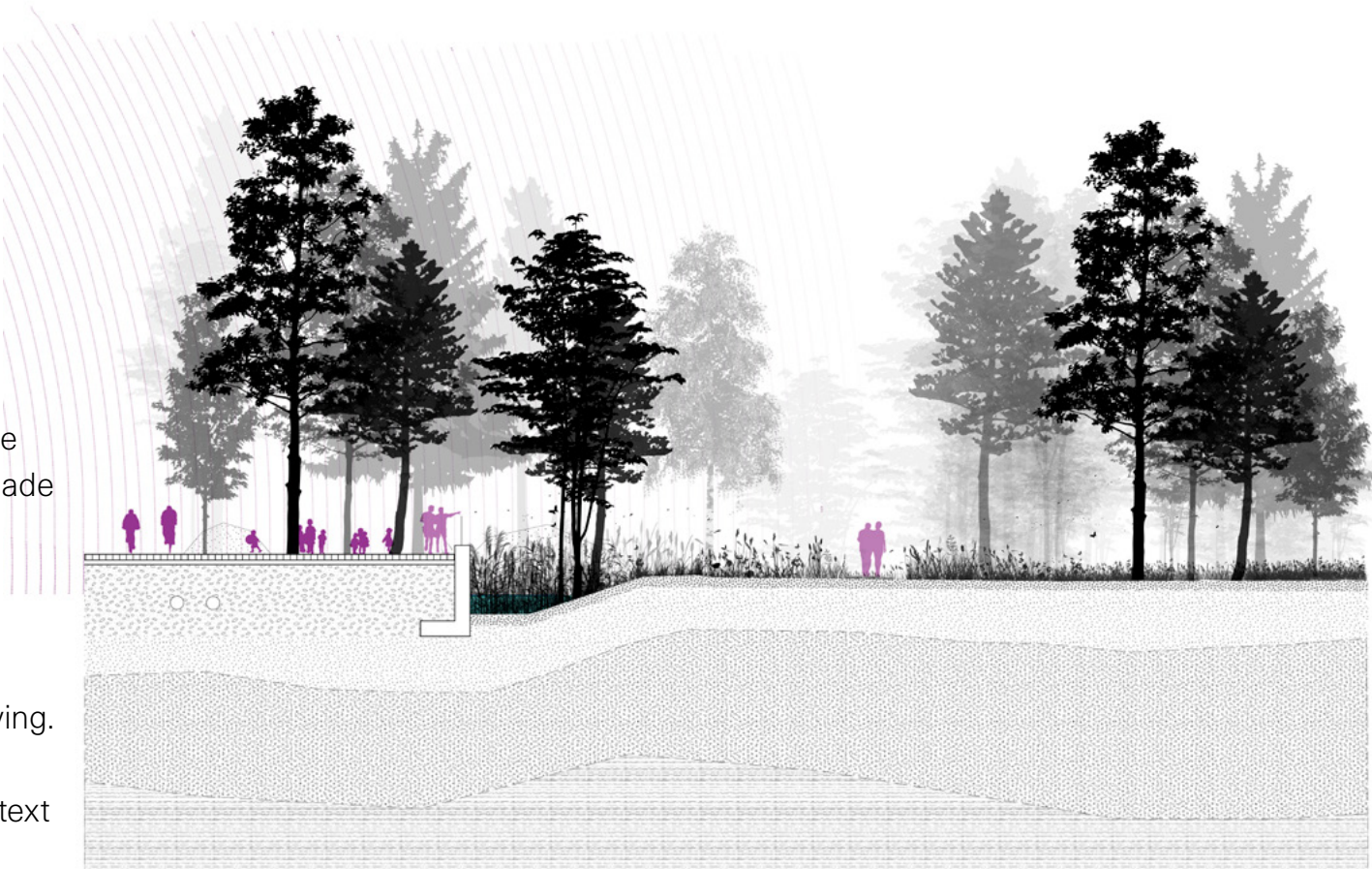


Entrances

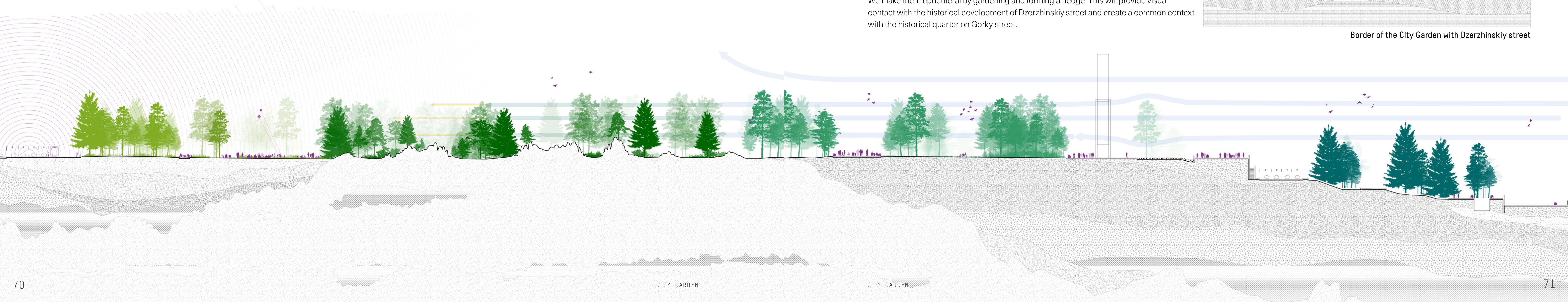
Entrance groups not only mark the entrances to the Park, orienting citizens. Accentuated portals are a sensory message that you are entering a different space with an atmosphere that contrasts with the city streets. Portals resemble their historical prototypes, but are made in modern forms.

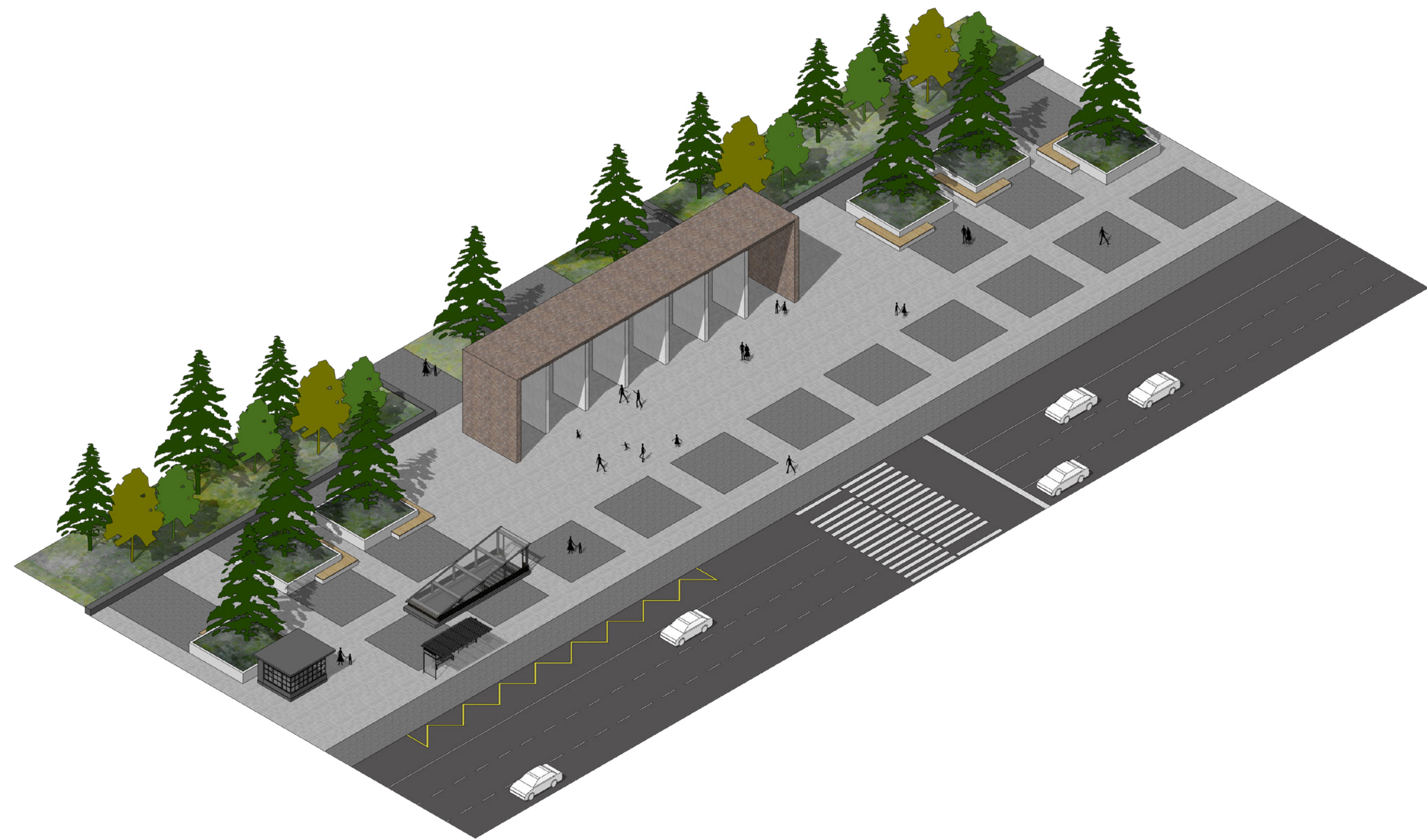
Fence

The borders between the City Garden and the surrounding pedestrian streets are dissolving. We make them ephemeral by gardening and forming a hedge. This will provide visual contact with the historical development of Dzerzhinskiy street and create a common context with the historical quarter on Gorky street.



Border of the City Garden with Dzerzhinskiy street





The main entrance

Landscape and dendrological concept

3.3. Conceptual landscape architectural, design, layout and arrangement solutions of the territory and key facilities of the territory's reaction infrastructure (taking into account requirements to carrying out of activities and requirements to the urban development regulations within the boundaries of the competition site of the place of interest "Site of memory associated with history and culture of the city").

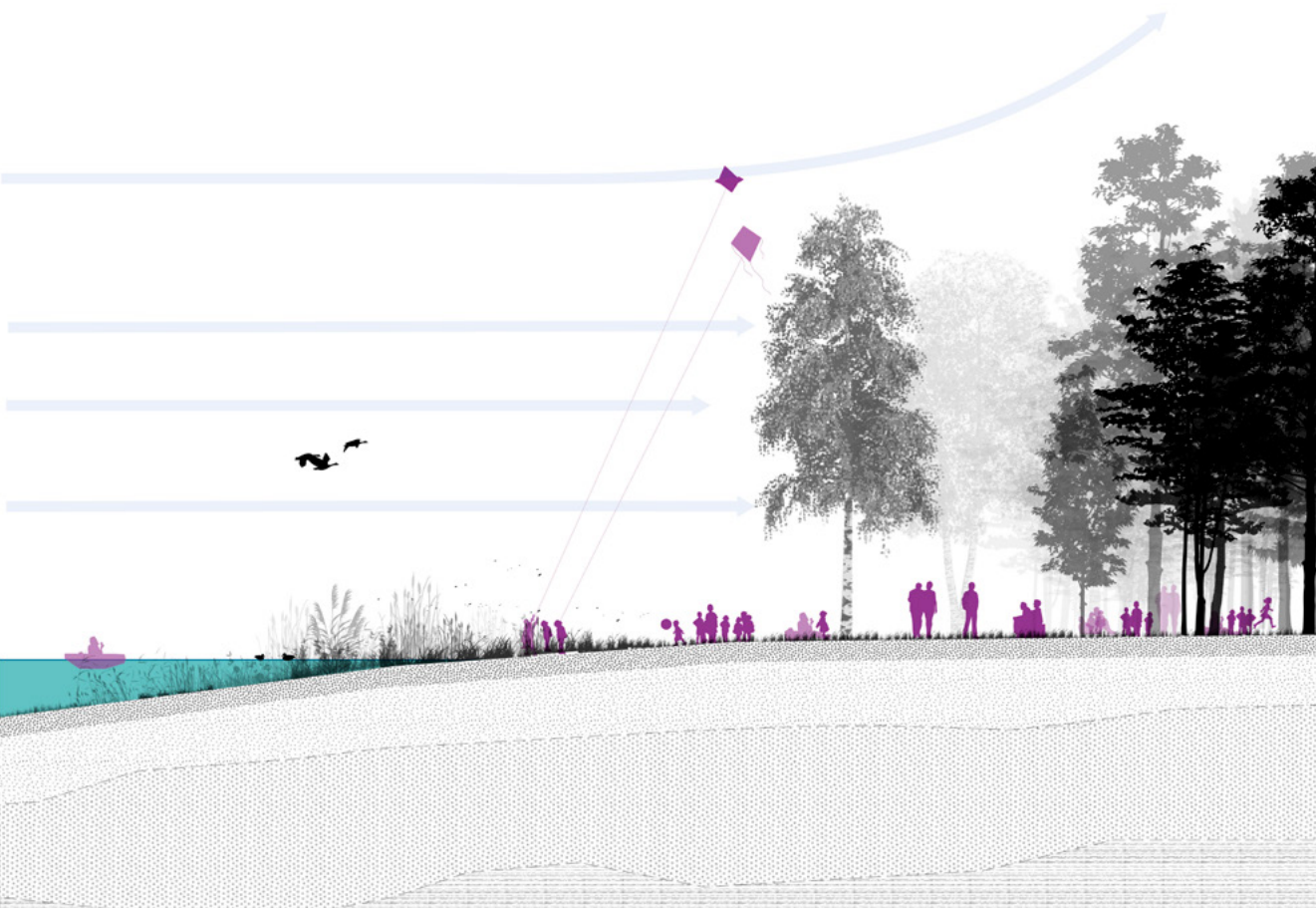
The individual appearance of each room of the City garden is created under the inspiration of the scale of the nature of Krasnoyarsk with its powerful rivers, contrasts of landscape zones, Yenisei bull-looking cliffs, granite rocks of Pillars, picturesque bays of the Krasnoyarsk sea.

There are three natural areas in the green rooms of the garden that surround the city - forest-steppe, mountain taiga and coastal wet forest. Vegetation, landscape elements, coverings and small forms emphasize the character of the zones, showing visitors the richness of nature.

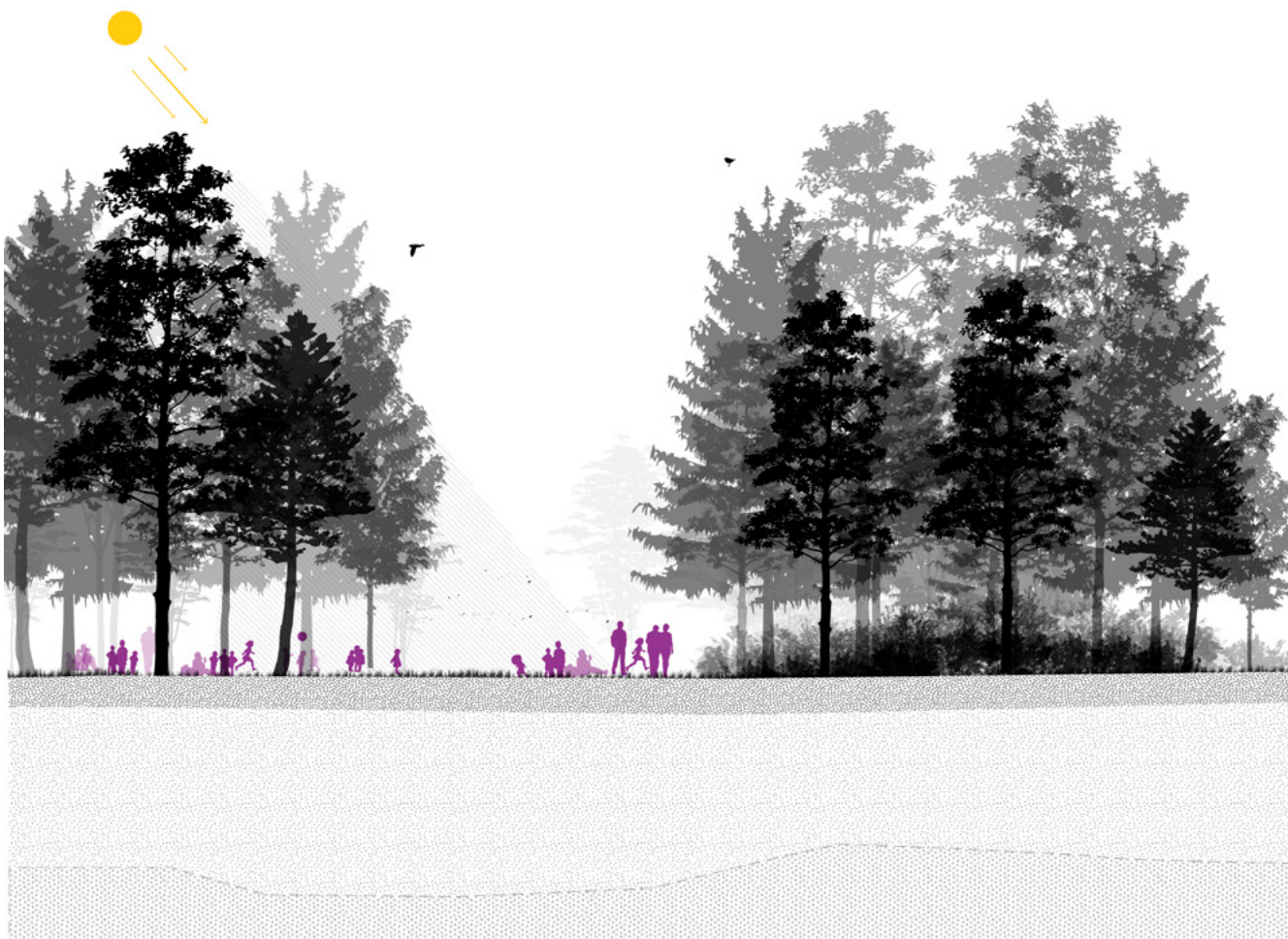
Woodlands and enclosed glades and lawns create various spatial experiences for Park visitors. On the largest of them you can have picnics and sunbathe on the grass. And in the thick of the forest you can even find a real windfall.



representative key parts, paving layout, construction of components of the urban development and landscaping;



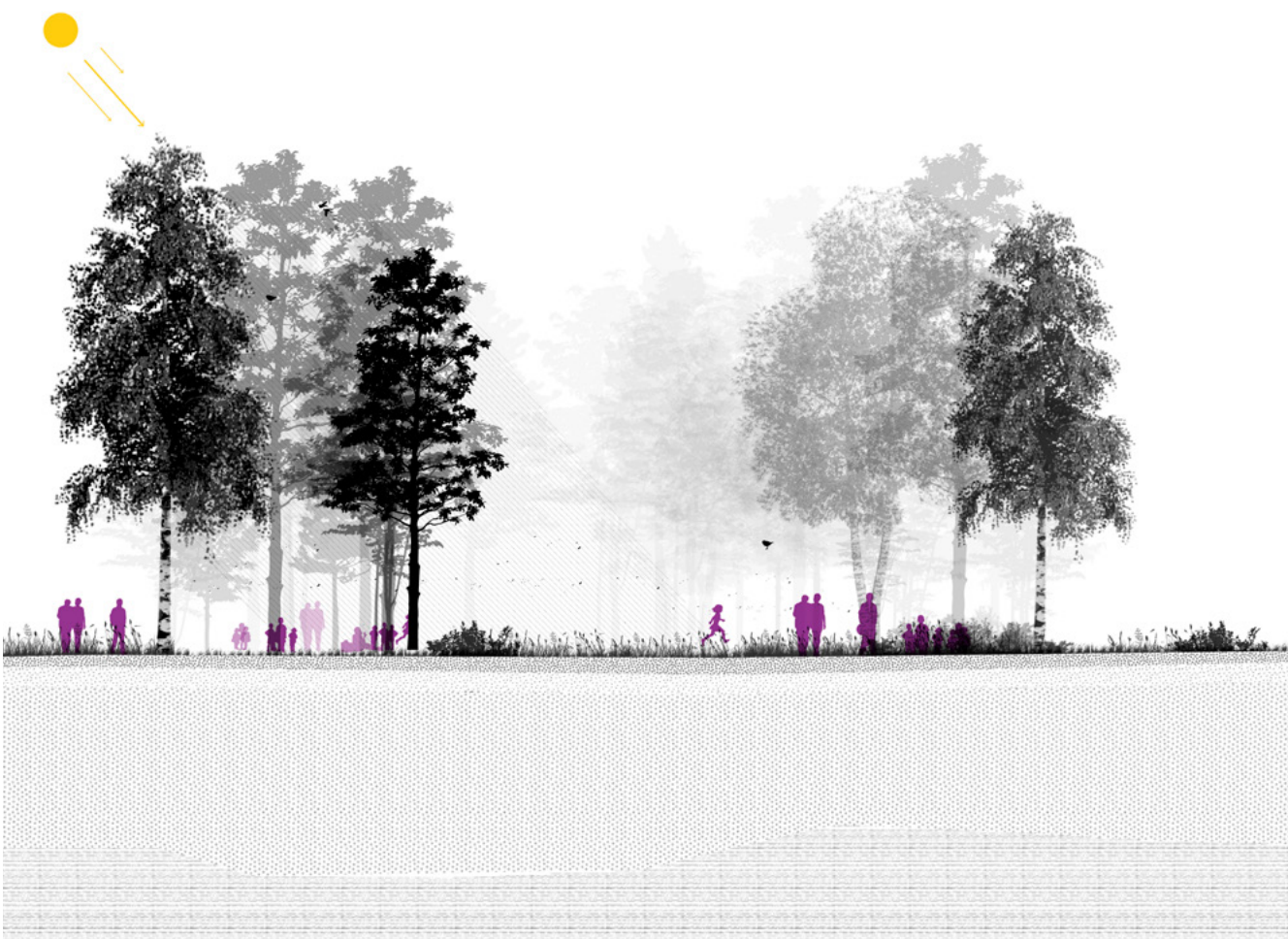
Green beach and the lake



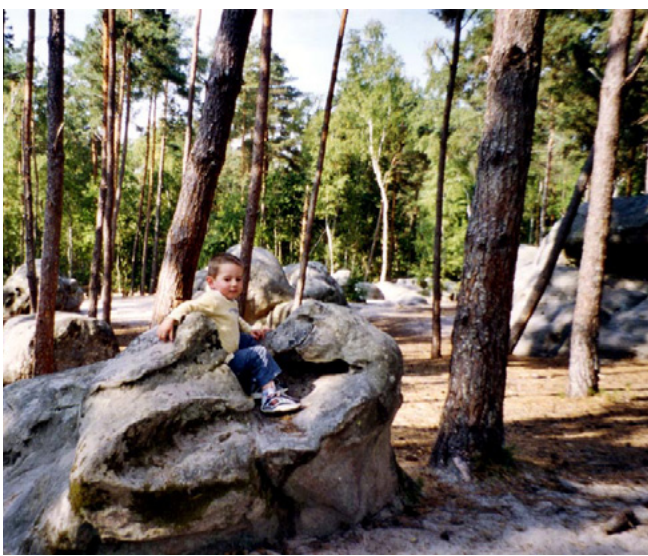
The glade in a mixed forest



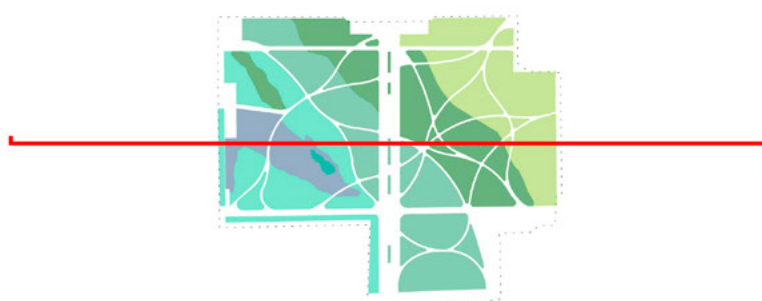
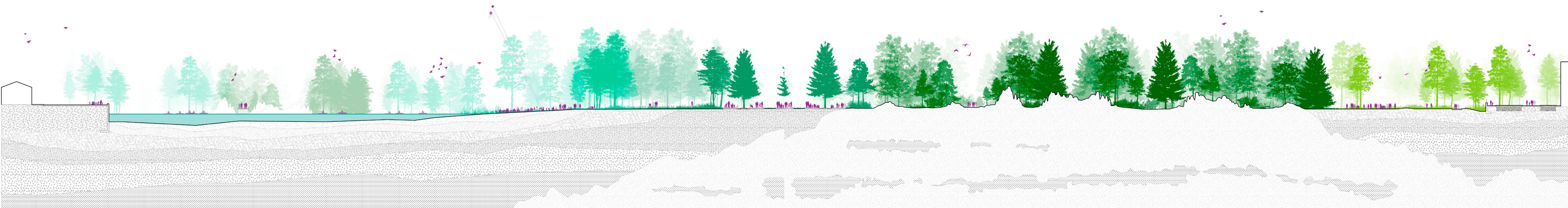
The rocks in a taiga forest



Forest-steppe



Cross-section



100m

List of plants

Mixed forest

Upper tree layer



Scots pine
Pinus sylvestris



Siberian larch
Larix sibirica




European aspen
Populus tremula

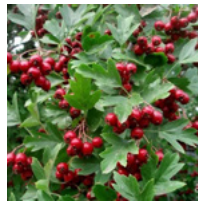


European white birch
Betula pendula


Lower tree layer



Bird cherry
Prunus padus




Siberian hawthorn
Crataegus sanguinea




Ussurian pear
Pyrus ussuriensis


Shrubs, flowers and herbs




Basket willow
Salix viminalis




Gelder-rose
Viburnum opulus




Sea-buckthorn
Hippophaë rhamnoides




Russian spirea
Spirea media




Black-fruited cotoneaster
Cotoneaster melanocarpus




Arctic rose
Rosa acicularis



Siberian dogwood
Swida alba



Great bellflower 'Alba'
Campanula latiloba 'Alba'



Male fern
Dryopteris filix-mas

Taiga



Siberian fir
Abies sibirica




Scots pine
Pinus sylvestris




Siberian larch
Larix sibirica



Siberian spruce
Picea obovata



Siberian rowan
Sorbus sibirica



Rowan
Sorbus aucuparia



Black elder
Sambucus nigra



Blue honeysuckle
Lonicera caerulea



Male fern
Dryopteris filix-mas



May lily
Maianthemum bifolium



Common wood sorrel
Oxalis acetosella

Forest-steppe



European aspen
Populus tremula




European white birch
Betula pendula



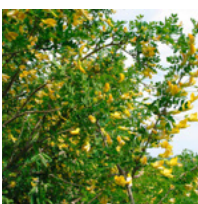
Black poplar
Populus nigra




Silver poplar
Populus alba



Siberian hawthorn
Crataegus sanguinea



Siberian peashrub
Caragana arborescens



Basket willow
Salix viminalis




Arctic rose
Rosa acicularis



Dog rose
Rosa canina



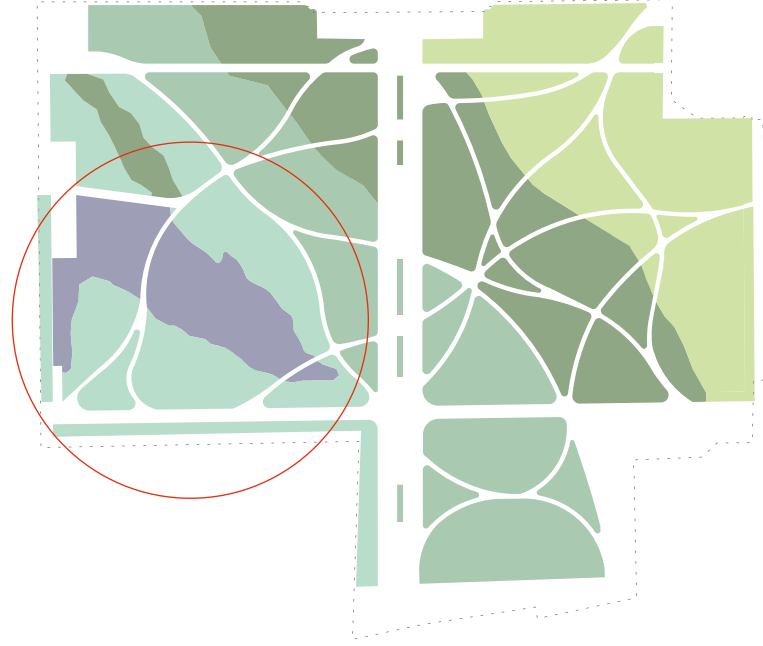
Common yarrow
Achillea millefolium



Yellow bedstraw
Galium verum

The Pond

The Western room of the garden contains a garden pond where you can go boating in summer and ice skating in winter. To the north of the pond is a green beach where you can have picnics and a large playground for preschool children. From this point, visitors will see the wooden objects of the historical quarter and the Seminary building reflected in the water. Equipment rental, rescuers and service services are located in a separate pavilion closer to Sadovaya street.



View from the lake of the railway station and the Historic quarter

Children's school of young naturalists and a sensitive garden



Returning the epithet "eco-friendly" to the city center, the City Garden takes on the mission of educating the ecological thinking of Krasnoyarsk residents. In addition to separate garbage collection and exclusion of motorized transport inside the Garden, an important element of this mission is the school of young naturalists with a vegetable garden and a greenhouse. Here small citizens learn more about the life of plants and their benefits in the city. They will grow vegetables and berries in the very city center, take care of large trees and take part in the maintenance of various garden vegetation.





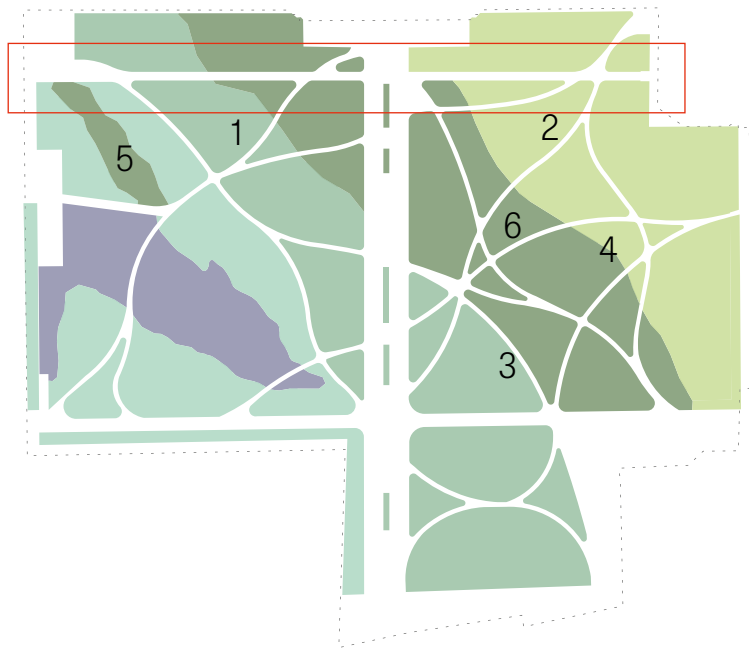
Ice rink around the Christmas tree



Winter activities on the pond

Objects, monuments and small forms

3.4. Proposals on environment design and signs of urban land development, including proposals on navigation, types of equipment, small architectural forms, lighting, finishing materials, etc



The authors adhere to the decisions of the Venice Charter, which aims to preserve the monument as a work of art and as a witness to history. We believe that the boundaries of the Garden can only be guided by the principles of scientific restoration, and all newly constructed objects should be harmoniously integrated into the environment, but reflect the spirit of the present time. Nothing will preserve the Garden better than excluding capital construction within its borders.

For us, the recreating of a City garden is not a recreating of form, but of meaning. Only the garden fence on Karl Marx street has been preserved of the objects described in the subject of protection. We offer to restore it and leave it unchanged. The remaining objects are completely lost, and the scant evidence of them should be preserved and presented in the garden as Museum exhibits.

Based on photos and information that has been preserved, but in new, more suitable places, we will install replicas of some temporary objects that existed at different times in the city garden – Chinese gazebo, Russian arbour and summer terraces – they will become pavilions for displaying historical artifacts and virtual expositions that tell about the history of the garden and the city.

The amphitheater and bandstand will be reconstructed in its place in new forms. All the statues and monuments scattered in the Garden in our competition offer are collected on the alley of named trees, running parallel to Marx street in the northern part of the garden. The built-up modular system will allow adding other monuments to the alley in the future.

The City Garden is stylistically eclectic: its various fragments have their own style of small forms. For historical zones, copies of street furniture corresponding to the era are recreated. In newly created zones, furniture is designed anew-individually in accordance with the style of the fragment. Only navigation elements, dog boxes, bike parks, and information signs are designed in the same style.

Paying tribute to the investor, the construction of bridges and lighting elements, frames of small shapes and gaming equipment are offered to be made of aluminum. This approach will allow the development of deep processing of aluminum in the Krasnoyarsk agglomeration, launch local production, strengthening the city's identity.

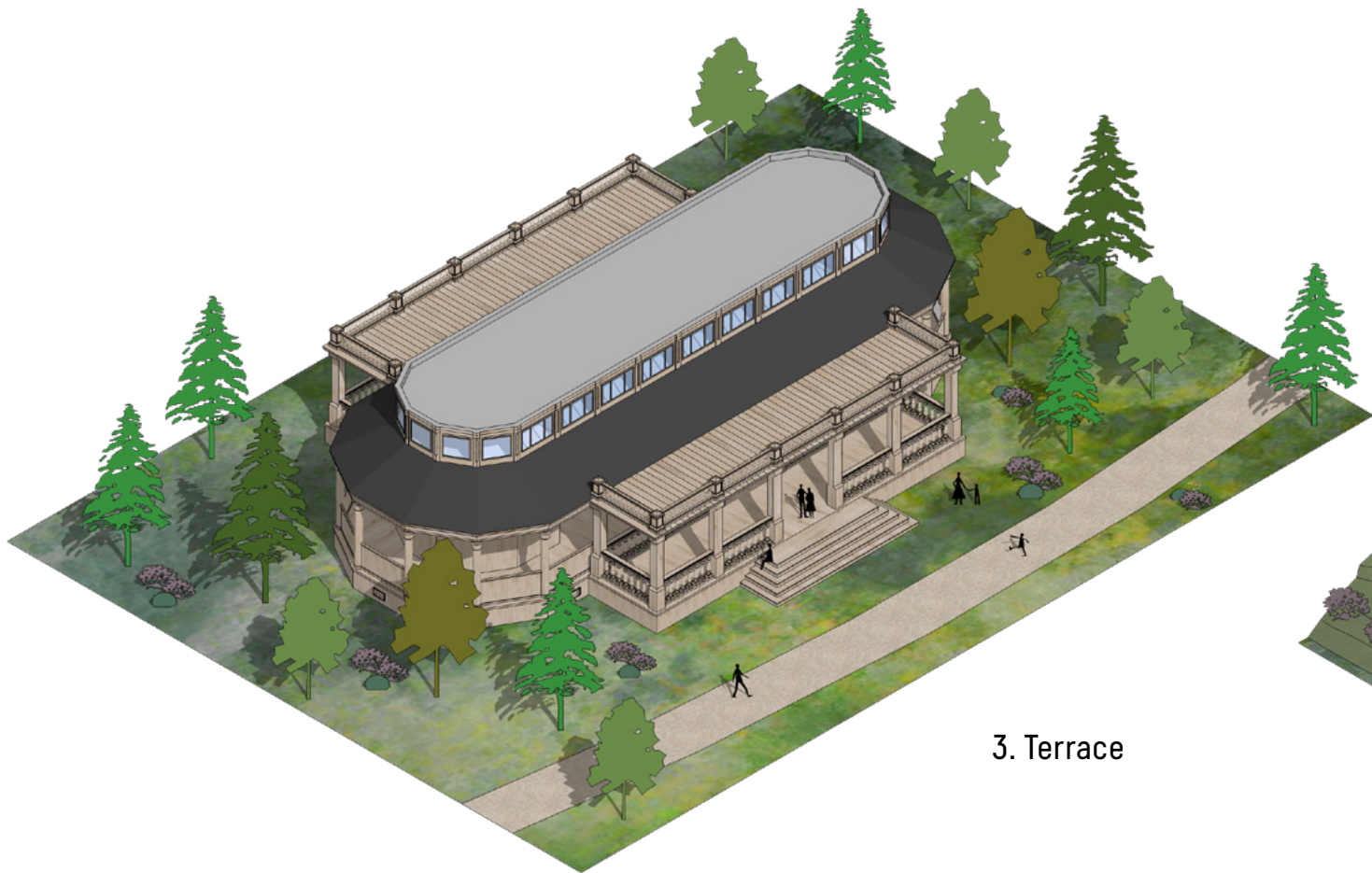
1. Arbour in Russian style



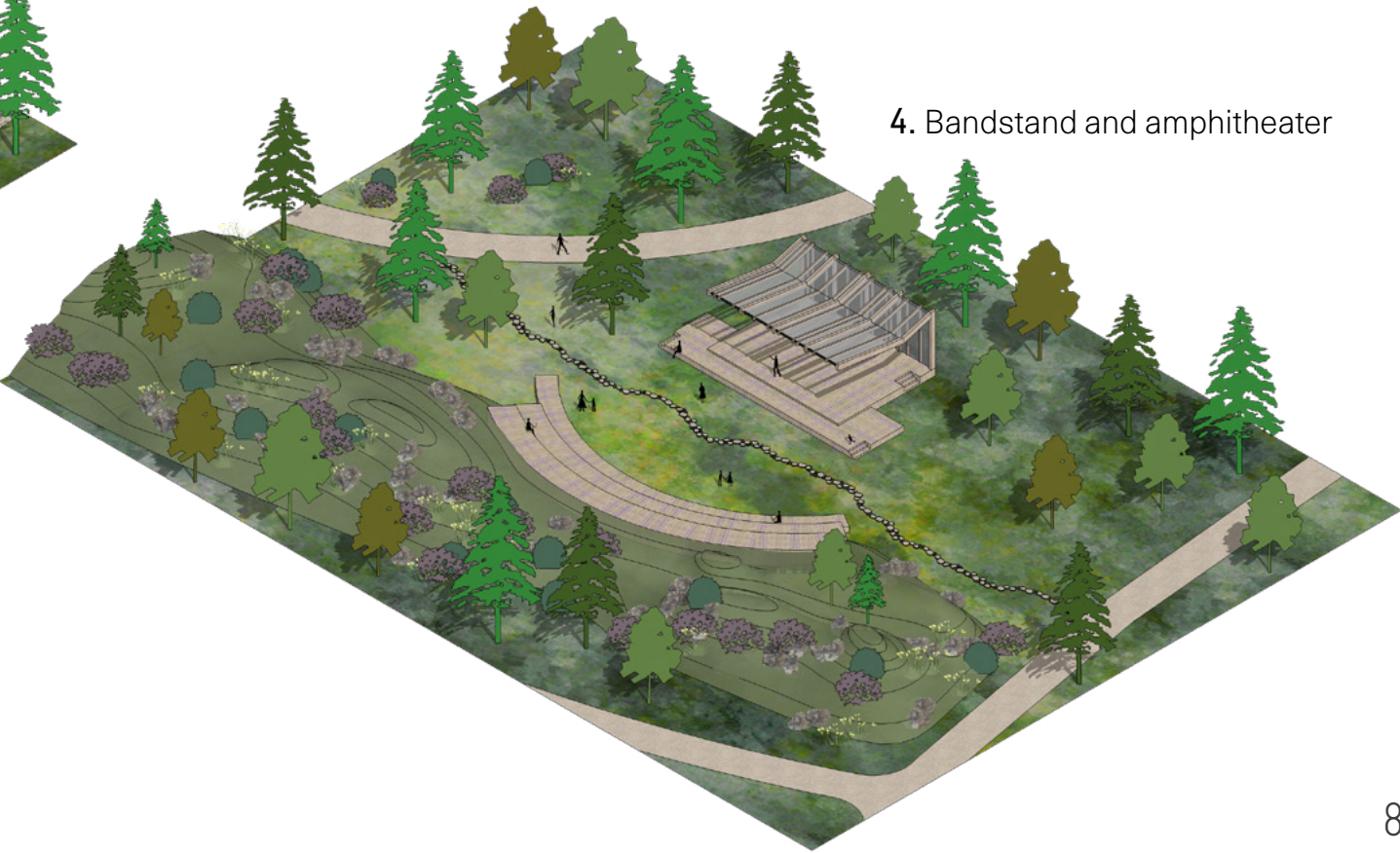
2. Chinese gazebo

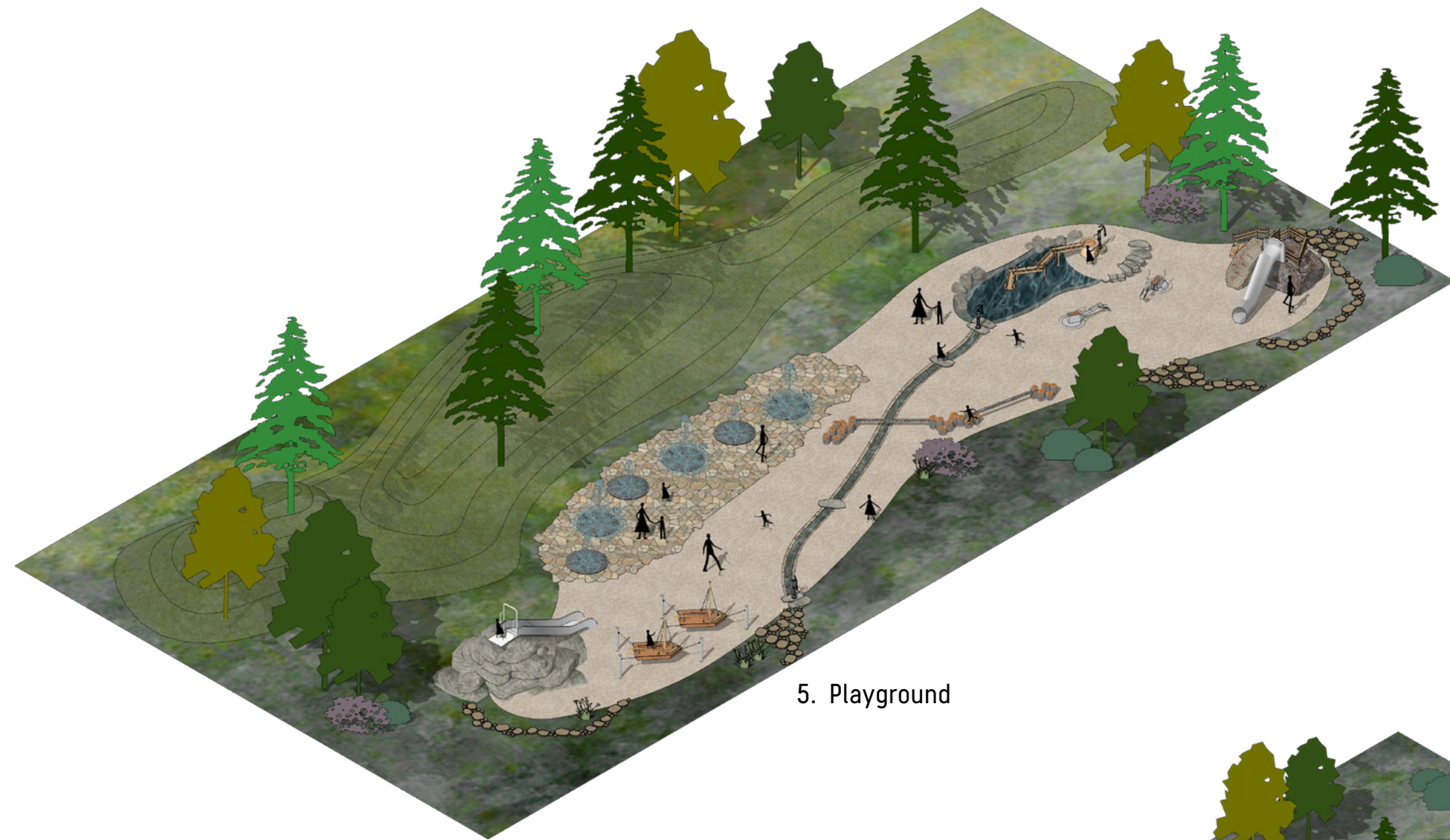


3. Terrace

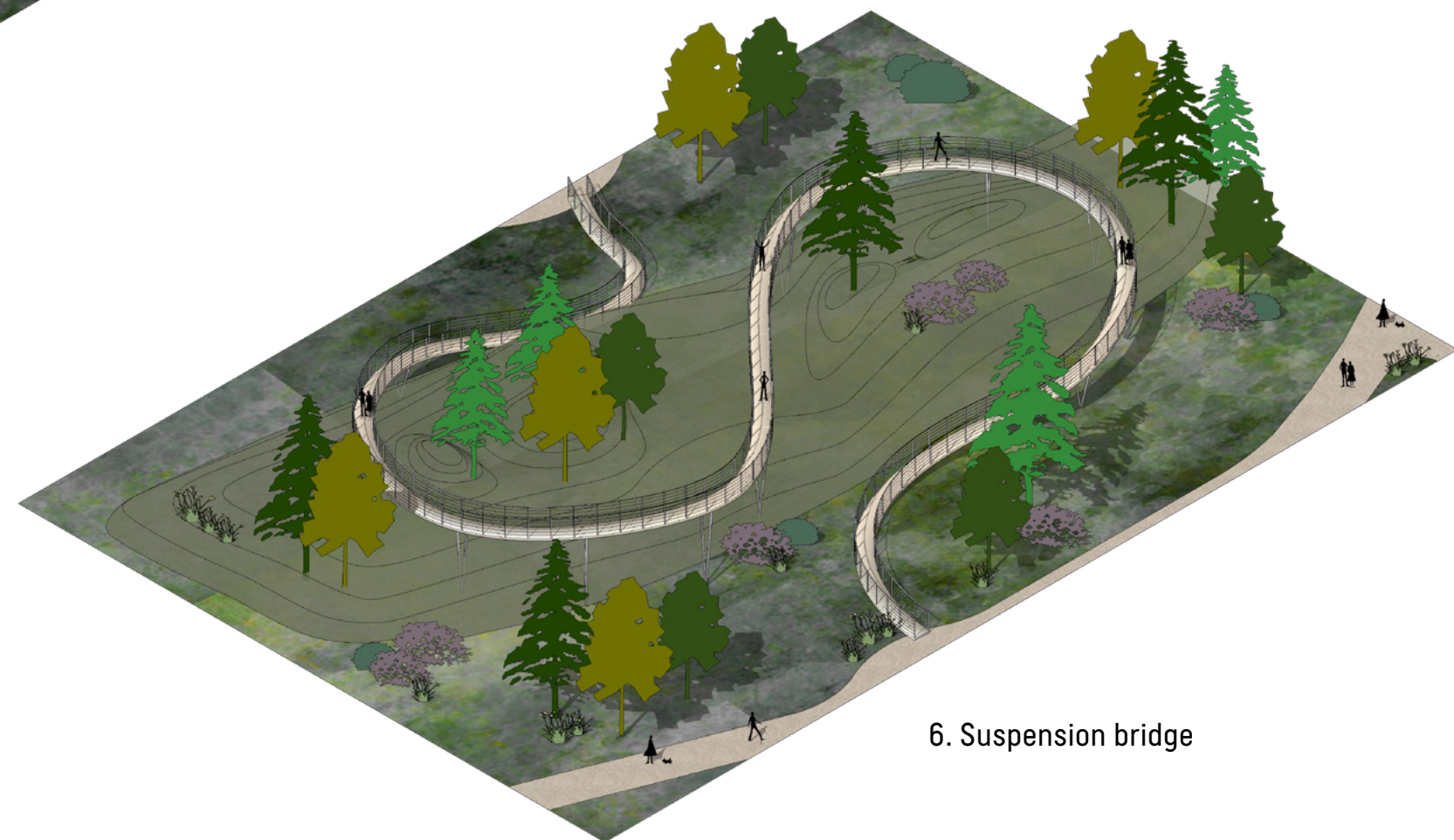


4. Bandstand and amphitheater





5. Playground






6. Suspension bridge



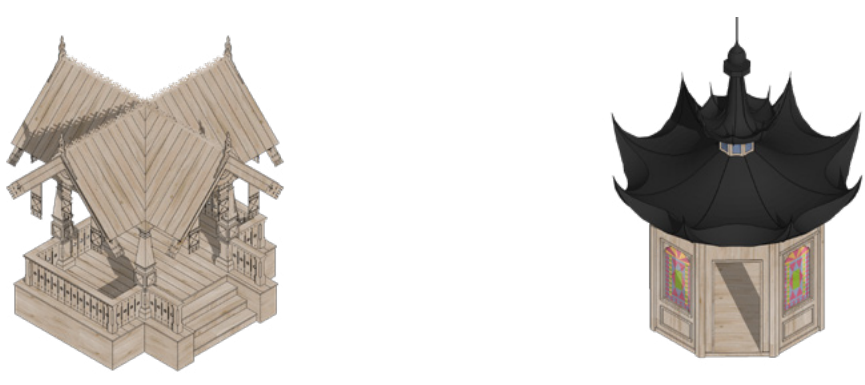


Suspension bridge








Proposals on environment design and signs of urban land development








including proposals on navigation, types of equipment, small architectural forms, lighting, finishing materials, etc.

Name	Picture	Placement in the City Garden	Material
Benches and chairs		All areas of the City Garden	wood, metal
Places for relaxation and contemplation		In the natural part of the garden, by the pond	wood, metal
Related furniture		All areas of the City Garden	wood, metal

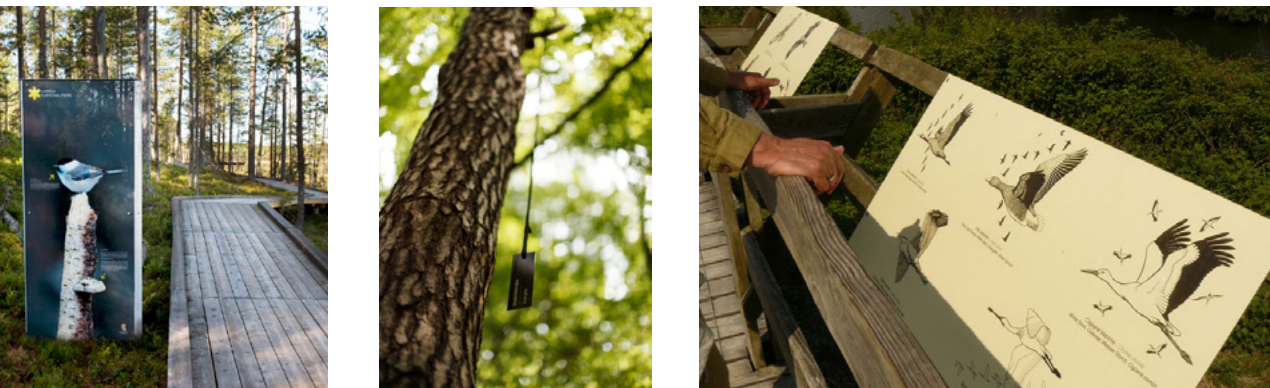
Name	Picture	Placement in the City Garden	Material
Baby equipment for babies		In the green area by the pond	wood, metal, natural stone
Baby equipment for older children		In the green area by the pond	wood, metal, natural stone
Gazebos		In the natural part of the garden, by the pond	wood , metal



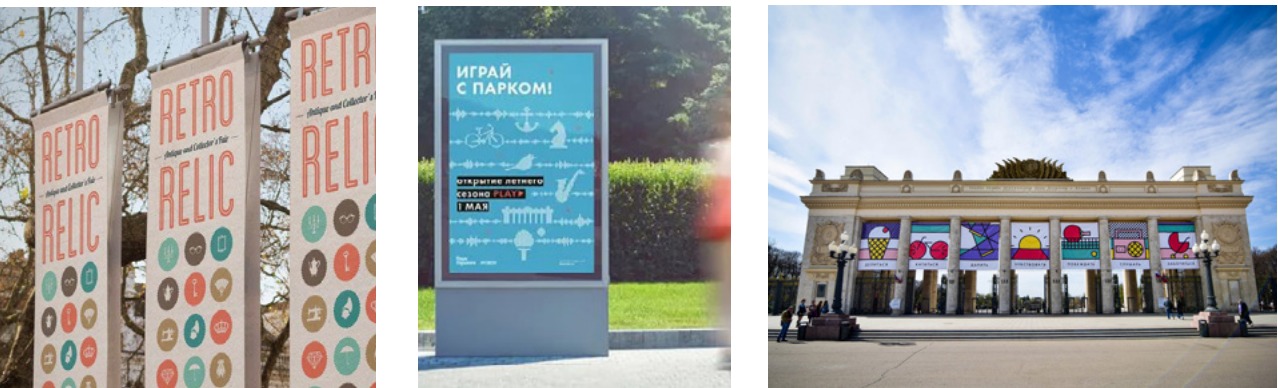
proposals on navigation, types of equipment,
small architectural forms, lighting, finishing materials, etc.

Name	Picture	Placement in the City Garden	Material
Stage with an amphitheater	  	In the natural part of the garden	wood, metal
Pedestrian elements infrastructure	 	In the natural part of the garden, by the pond	wood, metal, natural stone
Picnic furniture	 	In the natural part of the garden, by the pond	wood, metal






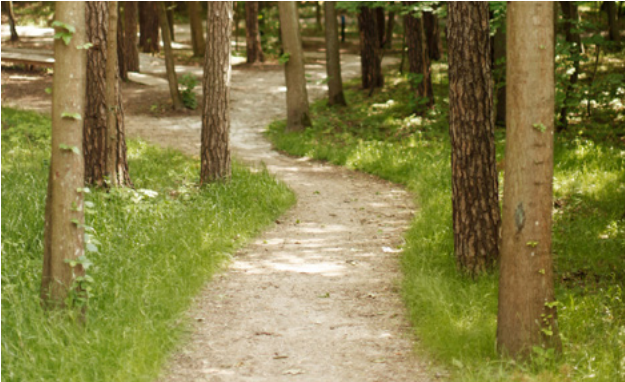

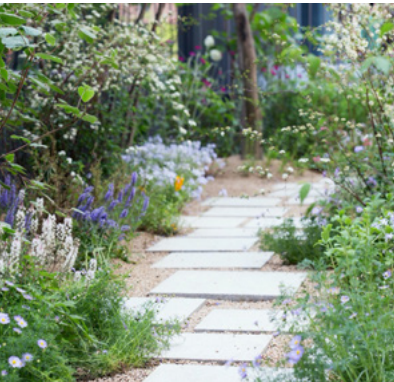

Name	Picture	Placement in the City Garden	Material
Outdoor infrastructure furniture	 	st. Sadovaya	wood, metal, natural stone, textile
Outdoor infrastructure furniture	 	st. Sadovaya	wood, metal, natural stone, textile
Outdoor infrastructure furniture	  	st. Sadovaya	wood, metal, natural stone, textile










proposals on navigation, types of equipment,
small architectural forms, lighting, finishing materials, etc.

Name	Picture	Placement in the City Garden	Material
Navigation stands with a map Pointers		Entrance groups, intersections of major pedestrian paths, places of functional activities	wood, metal, glass, natural stone
Information stands		Objects	wood, metal, glass, natural stone
Marking stands		Landscaping zones and natural landscape	wood, metal, natural stone

Name	Picture	Placement in the City Garden	Material
Historical stands		Territories of the lost historical sites	wood, metal, glass, natural stone
Appeals		All areas of the City Garden	wood, metal,
Information support		Main and minor alleys, entrance zones, st. Sadovaya	Tree, metal, glass, cardboard, paper, textiles

proposals on navigation, types of equipment,
small architectural forms, lighting, finishing materials, etc.

Pictures	Placement in the City Garden	Materials	Amount, m2
  	Main and minor alleys, entrance zones, st. Sadovaya	Paving slabs	20 000
  	Walking trails	Stuffed covering	17 000
  	Resting places	Stuffed covering, paving slabs, natural stone, stable lawn	1000

Pictures	Placement in the City Garden	Materials	Amount, m2
  	Игровая площадка	Песчаное покрытие	700
  	Школа юных натуралистов	Набивное покрытие	1000
  	Прогулочные дорожки, пирсы на пруду, настилы в местах отдыха	Дерево	1300

Children's railway

The children's railway is not only a historical element of the Park, but also an alternative way to see it from the inside. A trip through the forest, along streets and ponds, over bridges, in grottoes and tunnels, a trip to the steep Bank of the Yenisei river with a sudden opening of the city panorama gives visitors a unique spatial experience.

Main railway station [1]

For the construction of the station building, we use the foundations of existing garages and technical structures. The station of wooden glued structures in its decoration uses the motifs of the lost depot building and the station "Pervomayskaya": the building is divided into two volumes. In the northern part there is a buffet, ticket offices, toilets and a spacious waiting room combined with the children's railway Museum.

In addition to the main station three more stations with light canopies are being designed on the railway:

Sadovaya station [2]

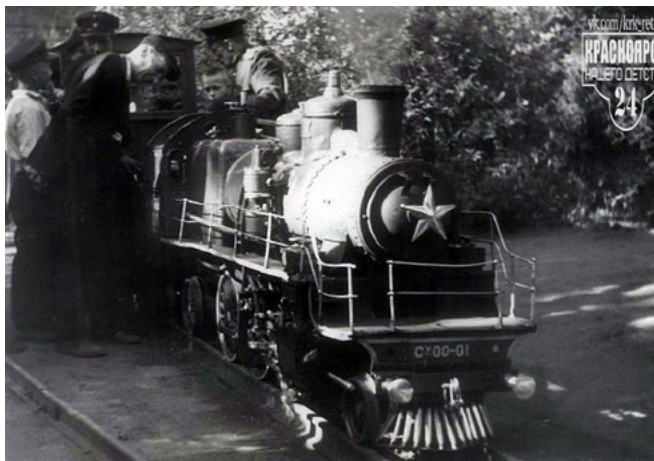
- located in the middle of the event program, on Sadovaya street, closer to the intersection with the main alley. Here you can get off the train to eat, have fun and take a walk.

Forest station [3]

- it is proposed to create a platform "Deep woods" in the natural zone "mountain taiga". The train stops in the tunnel of an artificial hill, the top of which can be climbed from the outside. In contrast to other locations, here you can stay in silence and feed squirrels – there are many of them in this part of the garden even today.

New railway line [4]

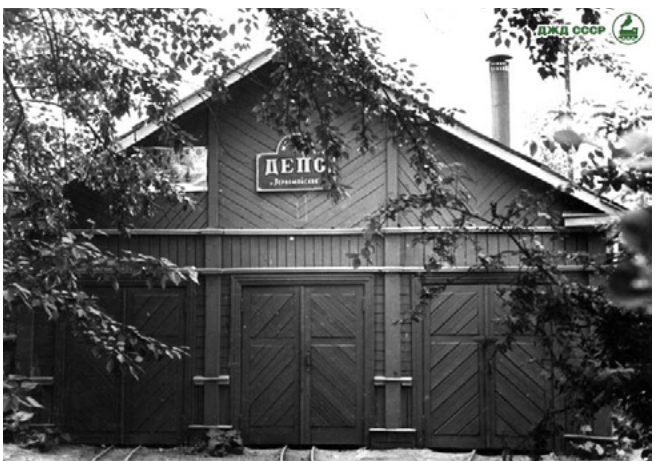
- leads to the very edge of the garden area. A steep river bank that offers a breathtaking city panorama. There, too, you can get off to go down to the embankment or ride the Ferris wheel.



Locomotive, 1954r.



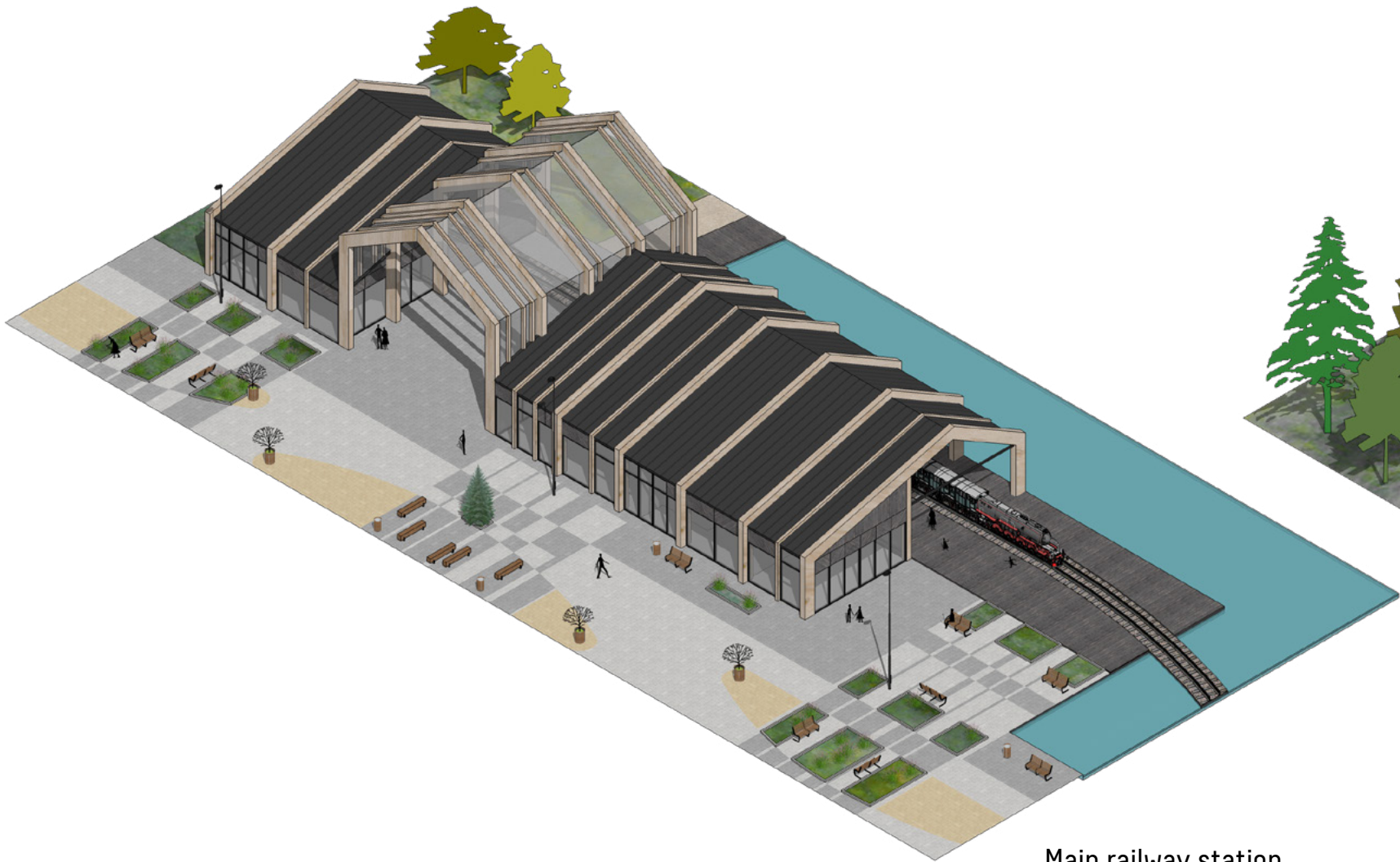
Station "Pervomayskaya"



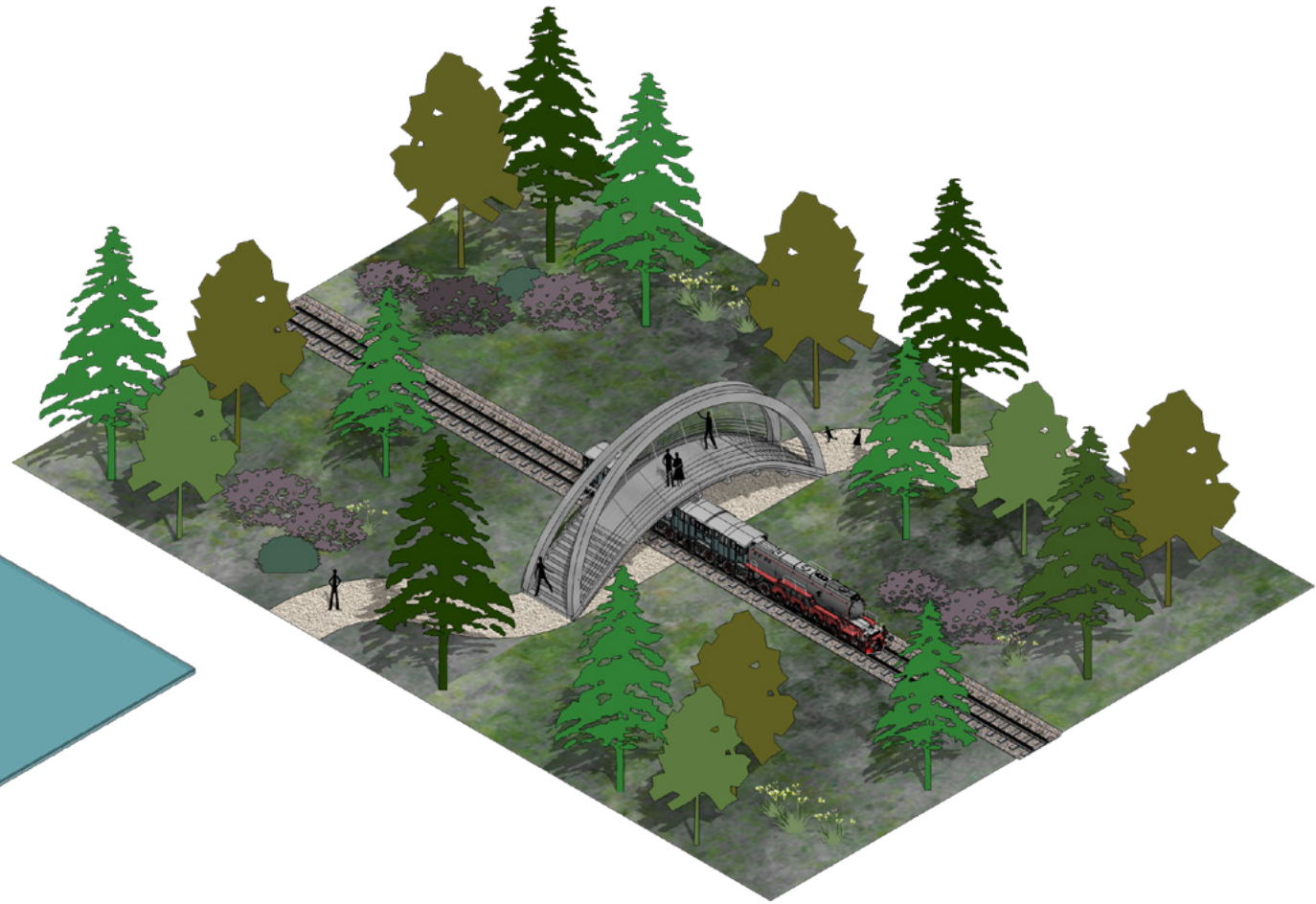
Depot building



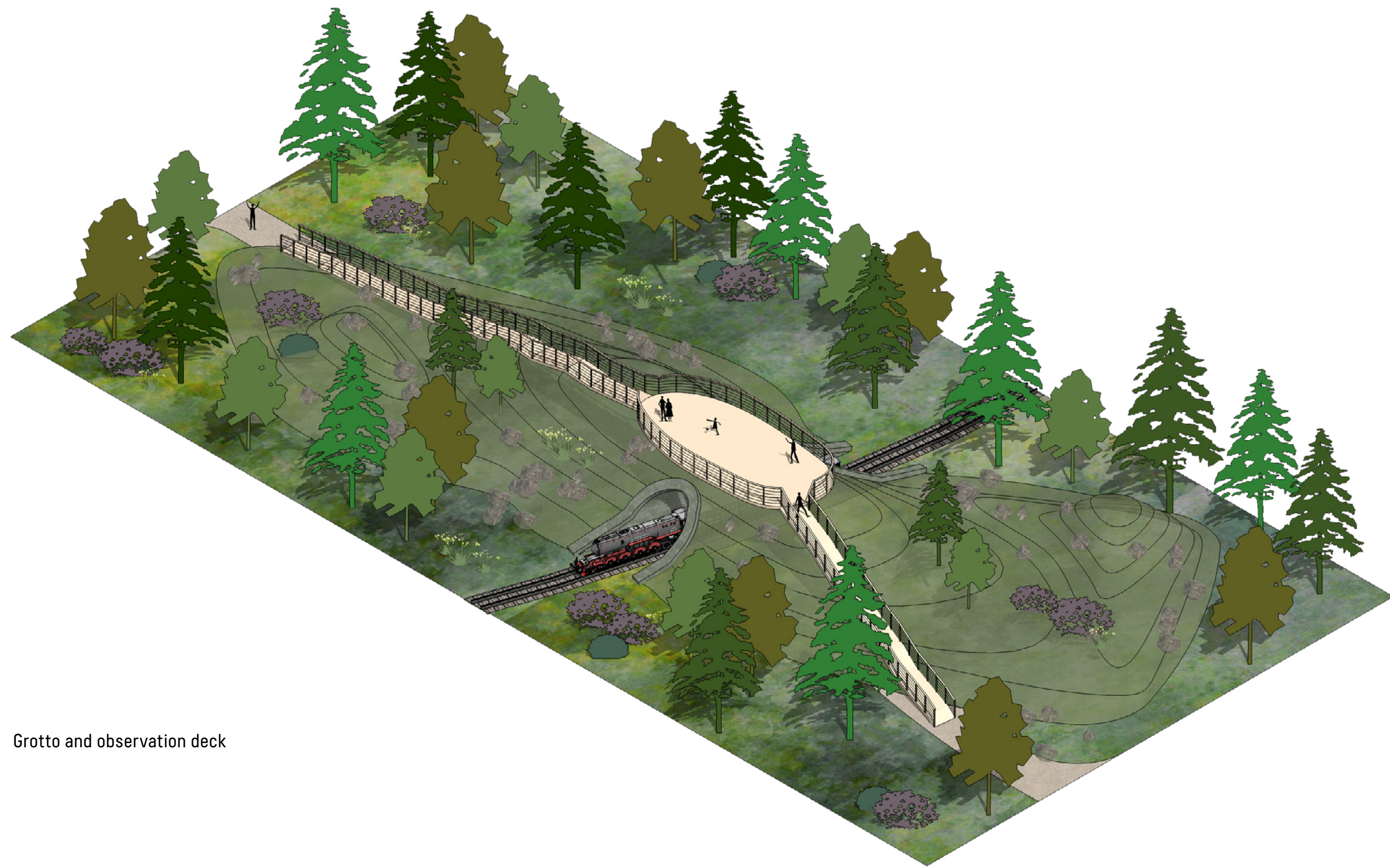
Other station building



Main railway station



Bridge over the railway



Grotto and observation deck



Grotto and the forest station

Ferris wheel and amusement area



We localize rides in the south room of the garden. There will be a new symbol of the City Garden and the symbol of the city - a large Ferris wheel, as well as a large children's carousel. Around, interspersed with catering and service facilities, there will be a new laugh room, a panic room, a shooting range and other classic park entertainment.

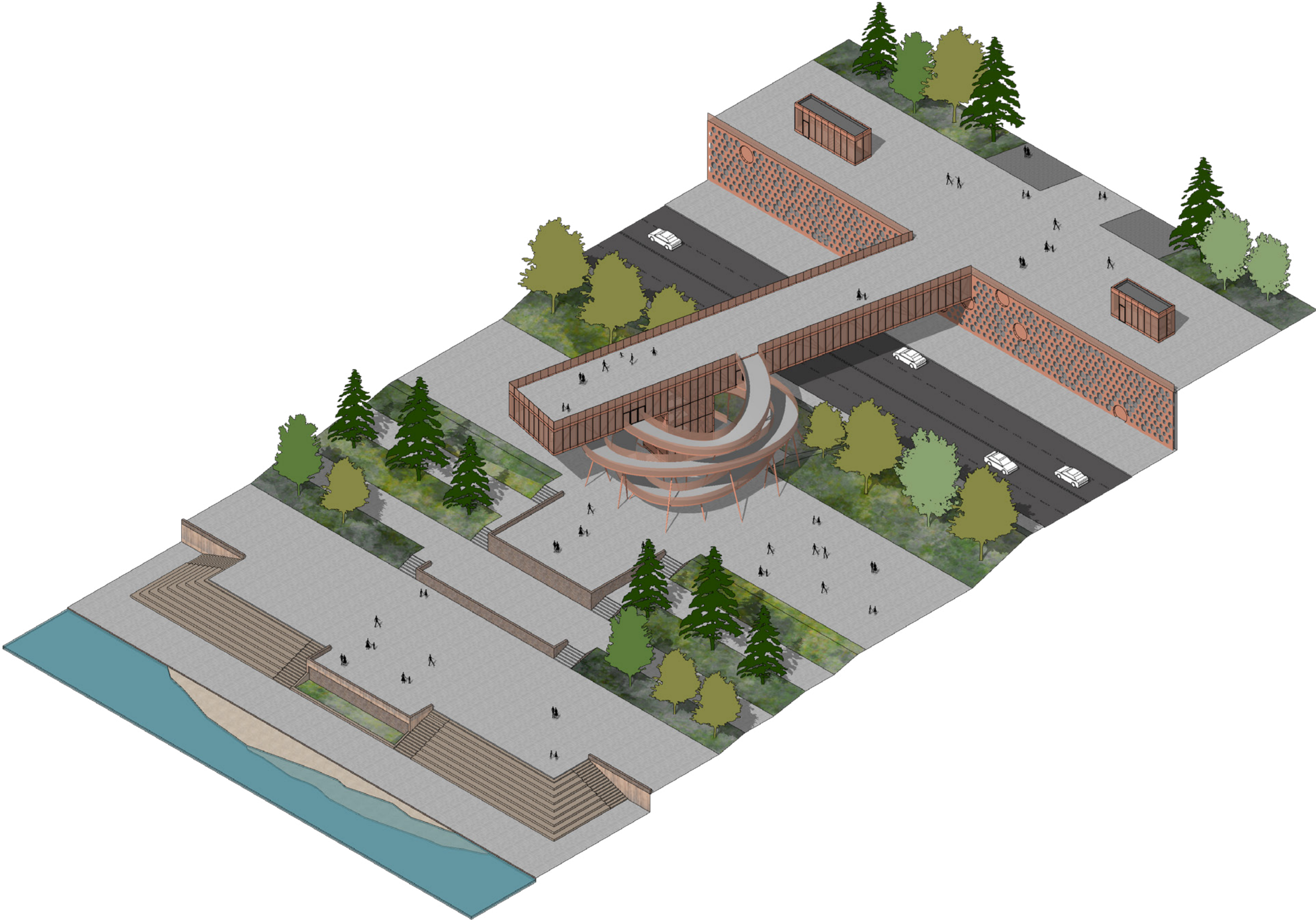
The new wheel will be twice as tall as the current one, with an openwork aluminum frame and modern wind-sealed capsules. The panoramic glazing of the cabins and the location of the wheel along the axis of the Yenisei will allow you to enjoy the views of the river and the Sayan spurs on the right bank and the Karaulnaya mountain on the left throughout the entire circle. The height of the wheel at the top point - 60 meters - is enough to soar above the roofs of the center and see the details of the landscape from new unusual angles. The wheel itself becomes an integral part of the river facade of Krasnoyarsk, the dominant landscape marker of the City Garden.

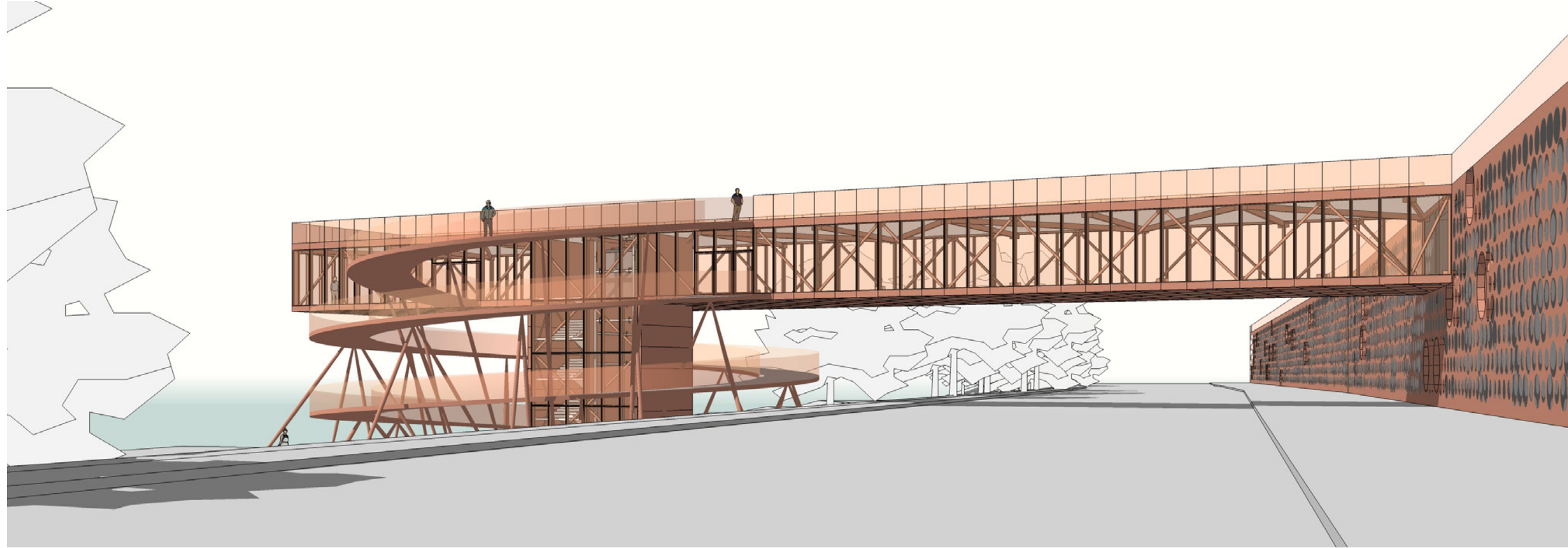


River facade

According to the authors, the exit to the embankment and the river facade should be completely reconstructed. From the garden to the shore, we offer to throw a two-level bridge.

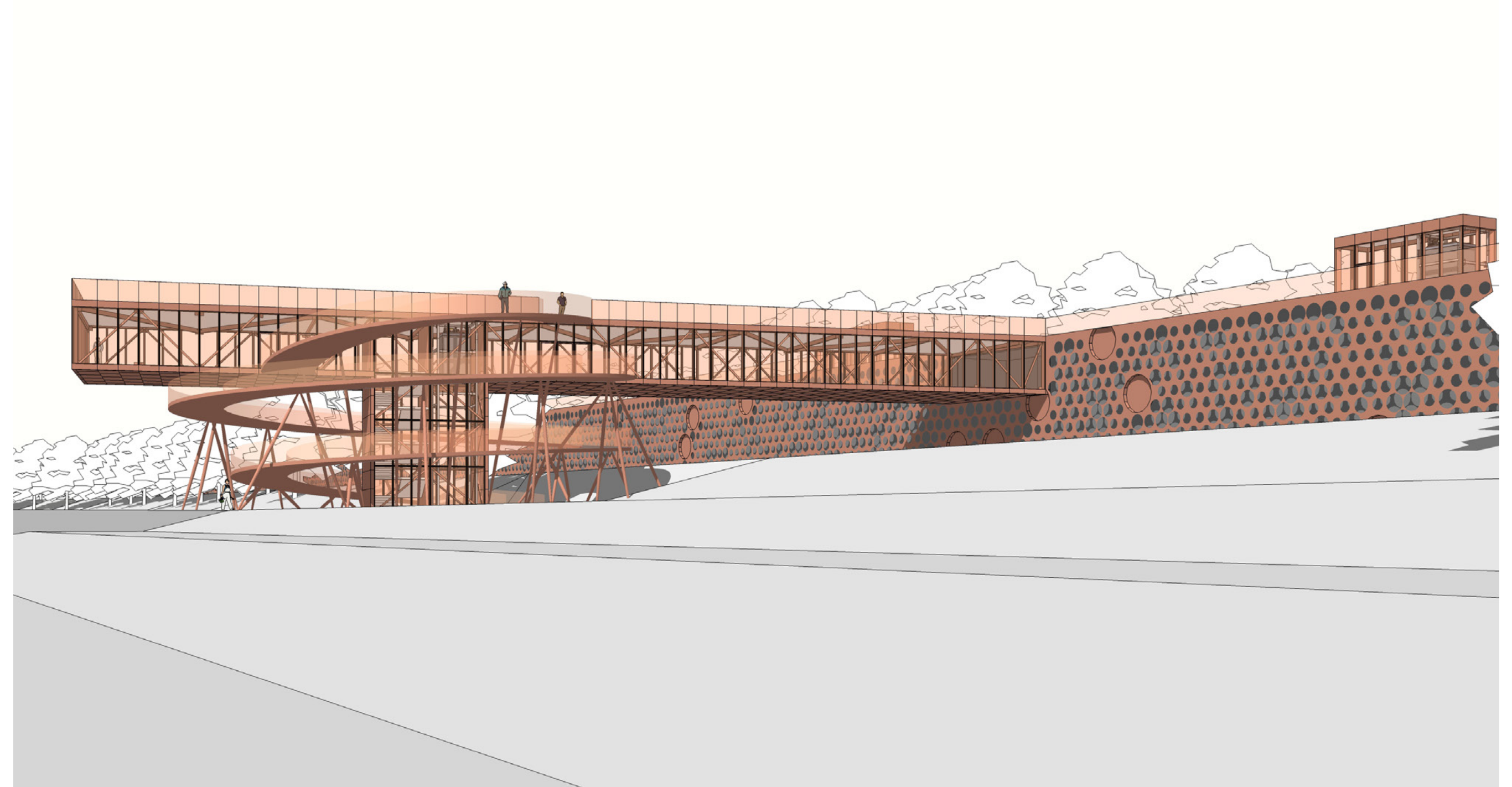
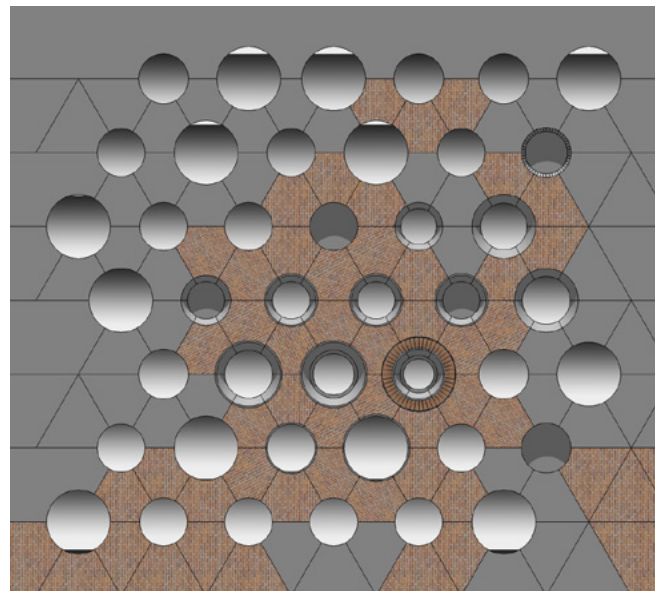
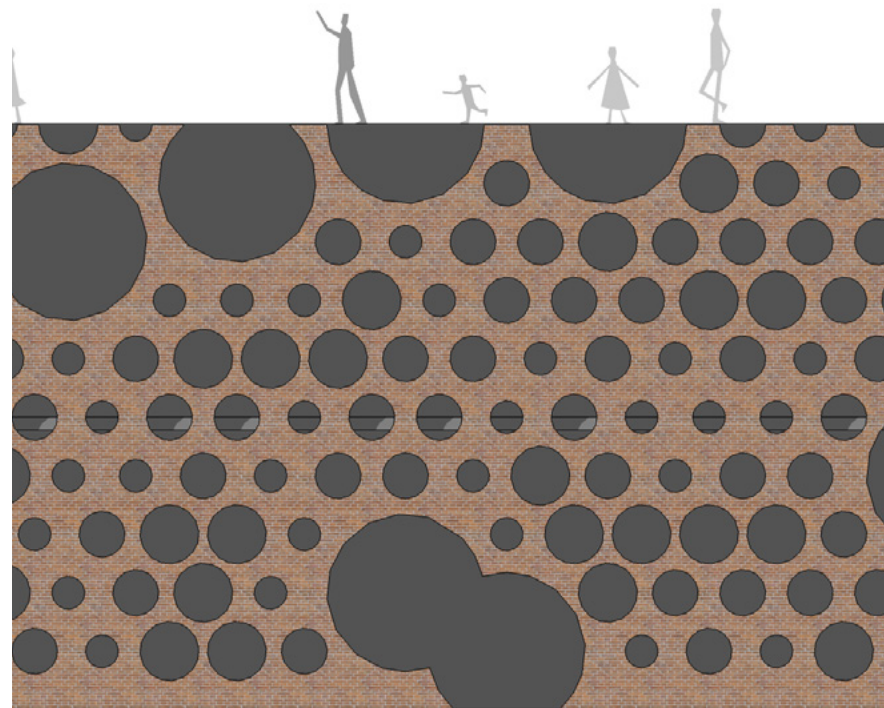
Its surface will allow you to enjoy the majestic panorama of the right bank, the view of the Kommunalny and railway bridges, the river and islands without visual interference. The lower tier of the bridge will allow you to watch this panorama all year round in the warmth and over a Cup of coffee. The project proposal does not involve capital construction projects on the South side of the Dubrovinskogo street: only smaht and lobby of the Elevator and supports a wide "ribbon" ramp providing barrier-free communication garden with promenade. All administrative functions are proposed to be assembled in a narrow building built along the entire retaining wall of the Park. An unusual texture that resembles a rocky cliff with birds ' nests, along with a ramp, a new bridge and a Ferris wheel, will form a new fragment of the river facade. Its intriguing character will also be revealed at night: the illumination will bring the missing element to the light panorama of the left bank of the Yenisei.





st. Dubrovinsky

Shaping Ideas



Central embankment r. Yenisei

Building - retaining wall and two-level bridge

Lighting masterplan

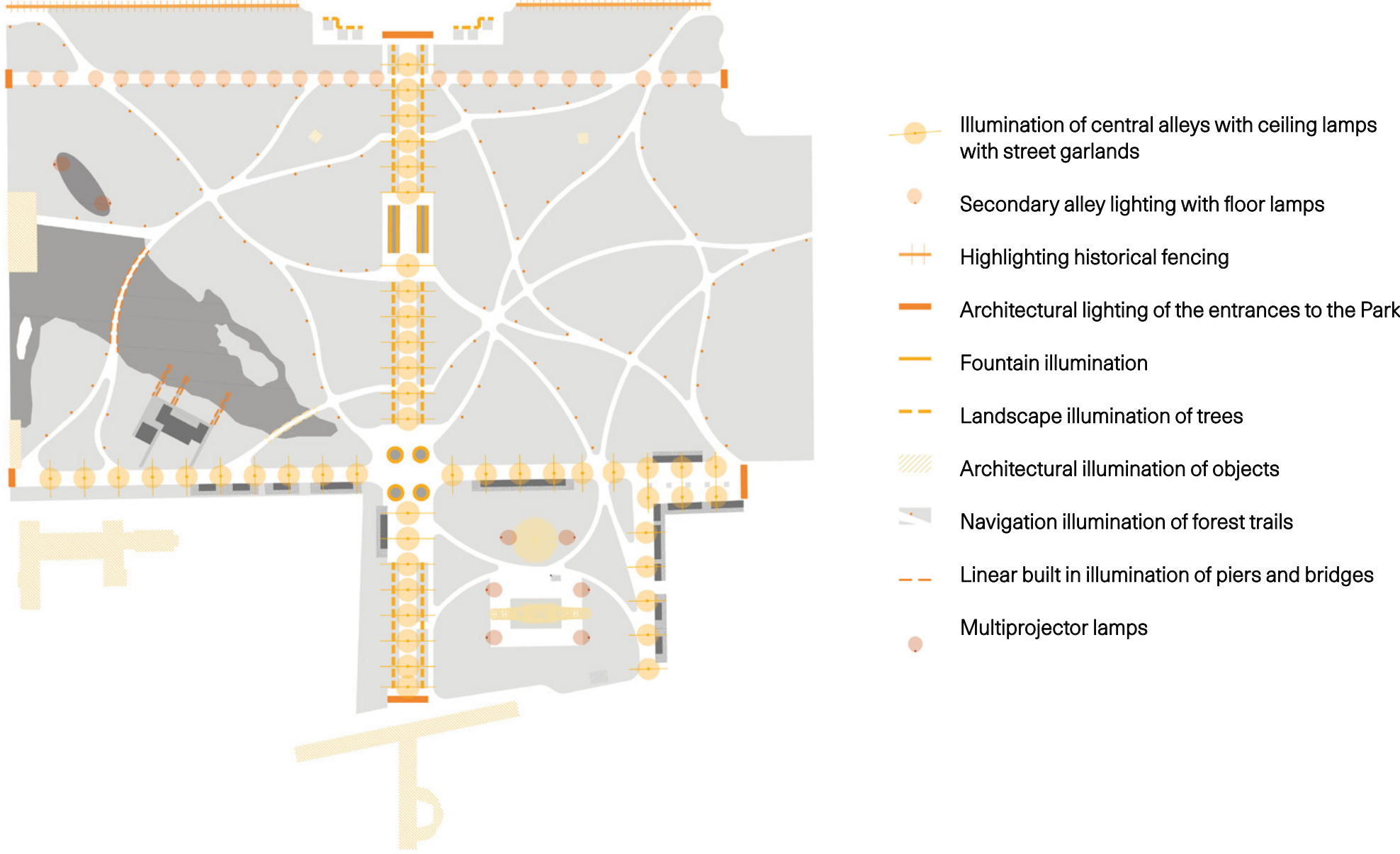
The light master plan of the City Garden is based on the principle of minimizing light pollution, including for the purpose of preserving biodiversity.

All functional garden lighting has operating modes. Lighting of alleys is performed by suspended street lamps on tripwires. Works in city mode until midnight, after midnight switches to standby light mode with reduced brightness. Lighting of secondary alleys and paths is carried out using floor lamps and columns. After midnight, it turns off, keeping only small spots of light in the nodal places.

Atmospheric illumination of landscaping elements and objects inside the Park also works until midnight, then switches to dim mode. The color temperature of all sources has a warm range not exceeding 2700K. In addition to functional, landscape and architectural lighting, the City Garden provides the possibility of seasonal installation of decorative and festive lighting. Garlands, light figures and a "suspended ceiling" on Sadovaya street and the Central alley will complement the light picture of the night garden during the new year and holiday weeks.

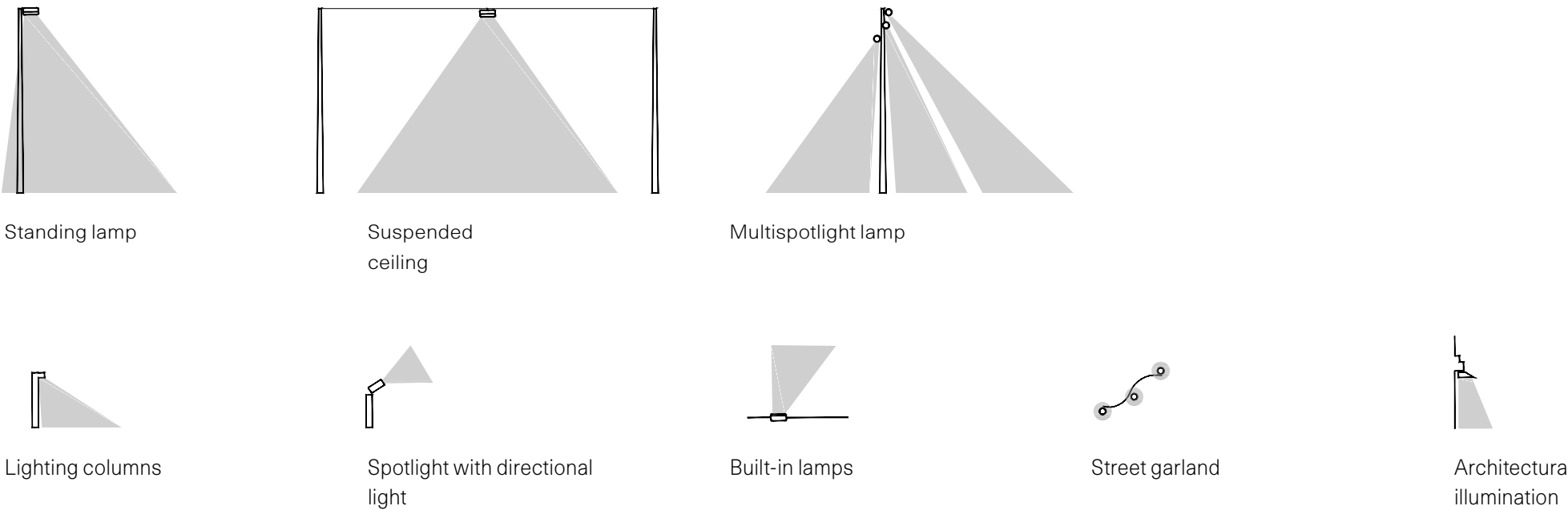


CITY GARDEN


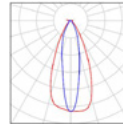

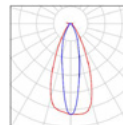

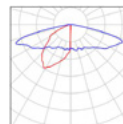

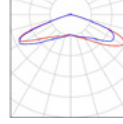

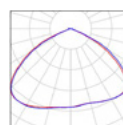


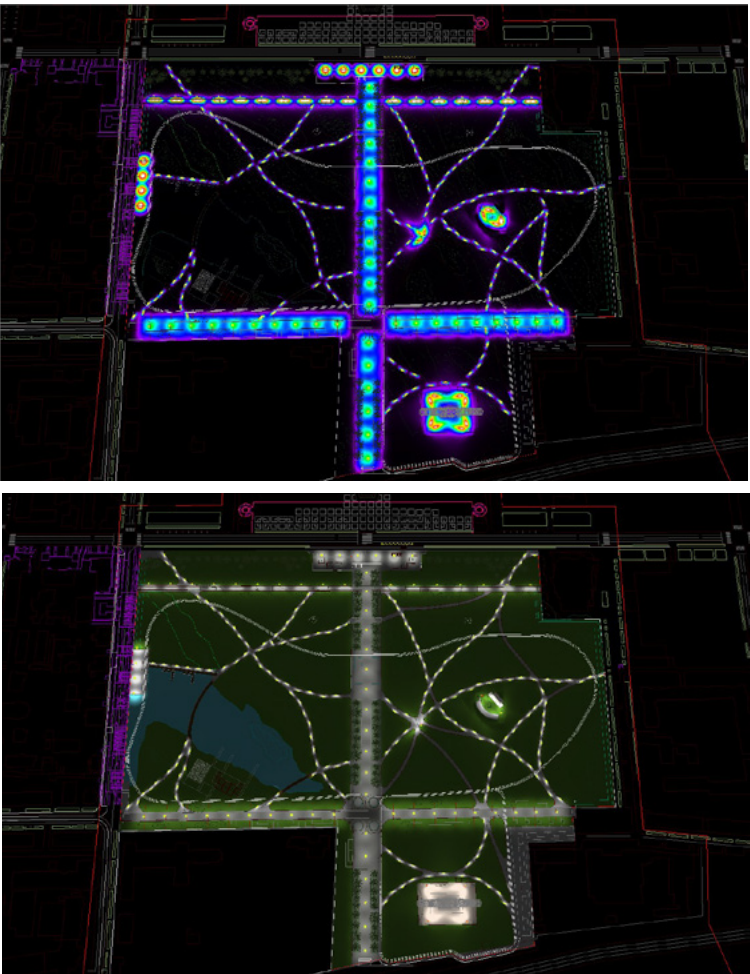
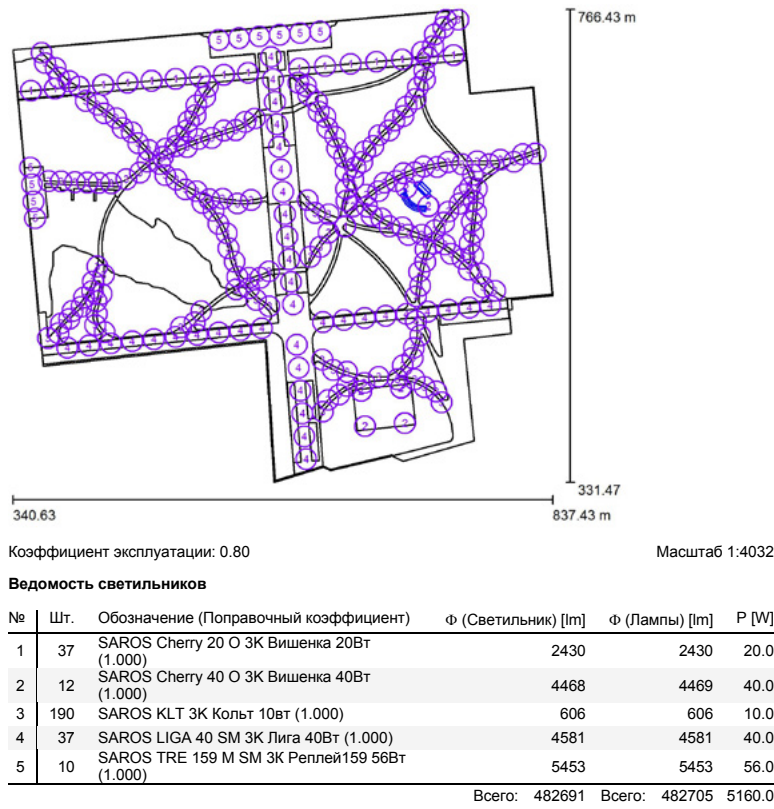
CITY GARDEN

Types of equipment



Light and technical calculation

37 шт.	SAROS Cherry 20 O 3K Вишня 20Вт Не изделия: Световой поток (Светильник): 2430 lm Световой поток (Лампы): 2430 lm Мощность светильников: 20.0 W Классификация светильников по CIE: 99 CIE Flux Code: 87 99 99 99 100 Комплектация: 45 x Ogarit S5 (Поправочный коэффициент 1.000).	 
12 шт.	SAROS Cherry 40 O 3K Вишня 40Вт Не изделия: Световой поток (Светильник): 4468 lm Световой поток (Лампы): 4468 lm Мощность светильников: 40.0 W Классификация светильников по CIE: 99 CIE Flux Code: 87 99 99 99 100 Комплектация: 45 x Ogarit S5 (Поправочный коэффициент 1.000).	 
190 шт.	SAROS KLT 3K Кольт 10Вт Не изделия: Световой поток (Светильник): 606 lm Световой поток (Лампы): 606 lm Мощность светильников: 10.0 W Классификация светильников по CIE: 100 CIE Flux Code: 29 63 93 100 102 Комплектация: 4 x OSRAM S5 (Поправочный коэффициент 1.000).	 
37 шт.	SAROS LIGA 40 SM 3K Лига 40Вт Не изделия: Световой поток (Светильник): 4581 lm Световой поток (Лампы): 4581 lm Мощность светильников: 40.0 W Классификация светильников по CIE: 99 CIE Flux Code: 20 56 96 99 100 Комплектация: 36 x OSRAM OS (Поправочный коэффициент 1.000).	 
10 шт.	SAROS TRE 159 M SM 3K Реплей159 56Вт Не изделия: Световой поток (Светильник): 5453 lm Световой поток (Лампы): 5453 lm Мощность светильников: 56.0 W Классификация светильников по CIE: 100 CIE Flux Code: 51 92 100 100 100 Комплектация: 1 x CLU-048 (Поправочный коэффициент 1.000).	 



All functional garden lighting has operating modes. Alley lighting is carried out with pendant street lamps on stretchers. Works in city mode until midnight, after midnight switches to standby light mode with reduced brightness. Illumination of secondary alleys and paths is carried out with the help of floor lamps and posts. After midnight, it turns off, keeping only small spots of light at the nodes.

Atmospheric lighting of landscaping elements and objects inside the park also works until midnight, then goes into a dim mode. The color temperature of all sources has a warm gamut, not exceeding 2700K. In addition to functional, landscape and architectural lighting, the City Garden provides the possibility of seasonal installation of decorative and festive lighting. Garlands, light figures and a "suspended ceiling" on Sadovaya Street and Central

Alley will complement the light picture of the night garden during the New Year and holidays. The building - a retaining wall with a bridge to the embankment is a continuation of the left-bank river facade of Krasnoyarsk. Its night view is also an integral part of the light panorama of the city, which forms from the Strelka to the Nikolaev highway bridge.

Here, in addition to lighting the linear objects of the pedestrian promenade of the embankment and st. Dubrovinsky is supposed to illuminate the building, the bridge and the Ferris wheel. Objects around the City Garden, especially historical and cultural monuments, should also be decorated with architectural lighting in accordance with the light master plan of Krasnoyarsk as part of the city program.



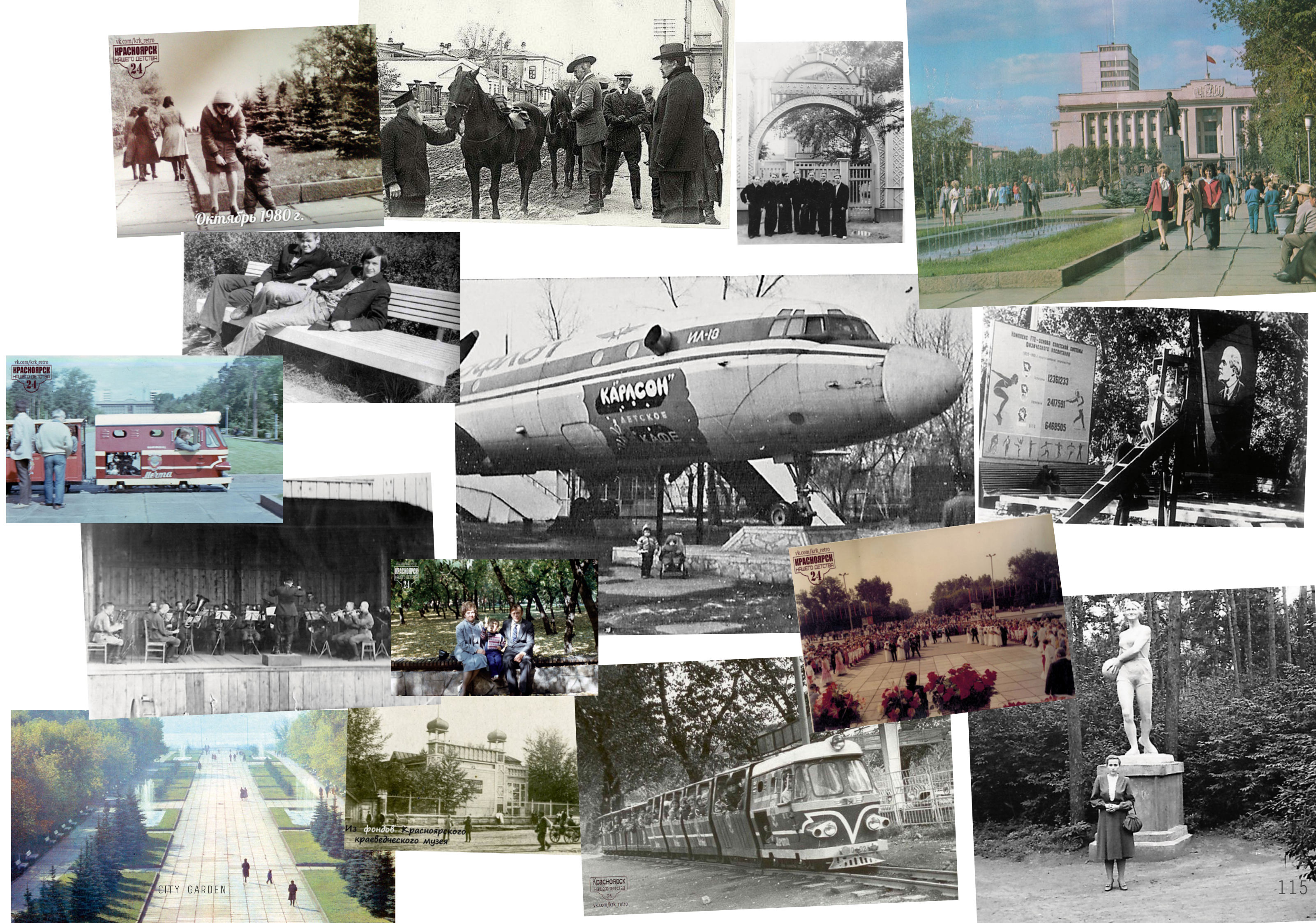
Metaphysical garden

The physically and sensually perceived City Garden is just one of the dimensions that citizens find themselves in. The second dimension will be the metaphysical garden-a living Museum of augmented reality. The real locations of the Park will be supplemented with layers of history, photos and memories of this space from the moment of its appearance.

By pointing the smartphone camera at the virtual placemarks, visitors to the garden will be able to see in detail the lost objects in their historical places. Here is the dacha of Governor Stepanov... There is the famous "Carlson": an Il-18 plane converted into an ice cream cafe...

To dive into the metaphysical depths of the City Garden, you need a smartphone and the City garden app. In addition to augmented reality technology, it should contain detailed navigation, information about services and entertainment, schedules for children's Railways, food outlets, and equipment rentals. The app can include educational and informative quests for different ages and tell urban legends using modern AR technologies.

The app will also help the Park administration collect feedback about the quality of services, incidents, successful or unsuccessful initiatives and events, which will allow you to constantly improve the City Garden.



Project implementation plan

The total duration of the project is 22 calendar months

3.6. Measures ensuring stage-by-stage implementation of the concept of development of the competition site.

2. Prospecting works

Engineering surveys, surveys of green spaces

3. Creation of a management company

General Customer, Maintenance Service

4. Design work

development of communication tools,
development of scientific and project documentation...

7. Construction and installation works

... and field supervision

1. Public discussion of the results of the competition

Participatory design. Pre-design work

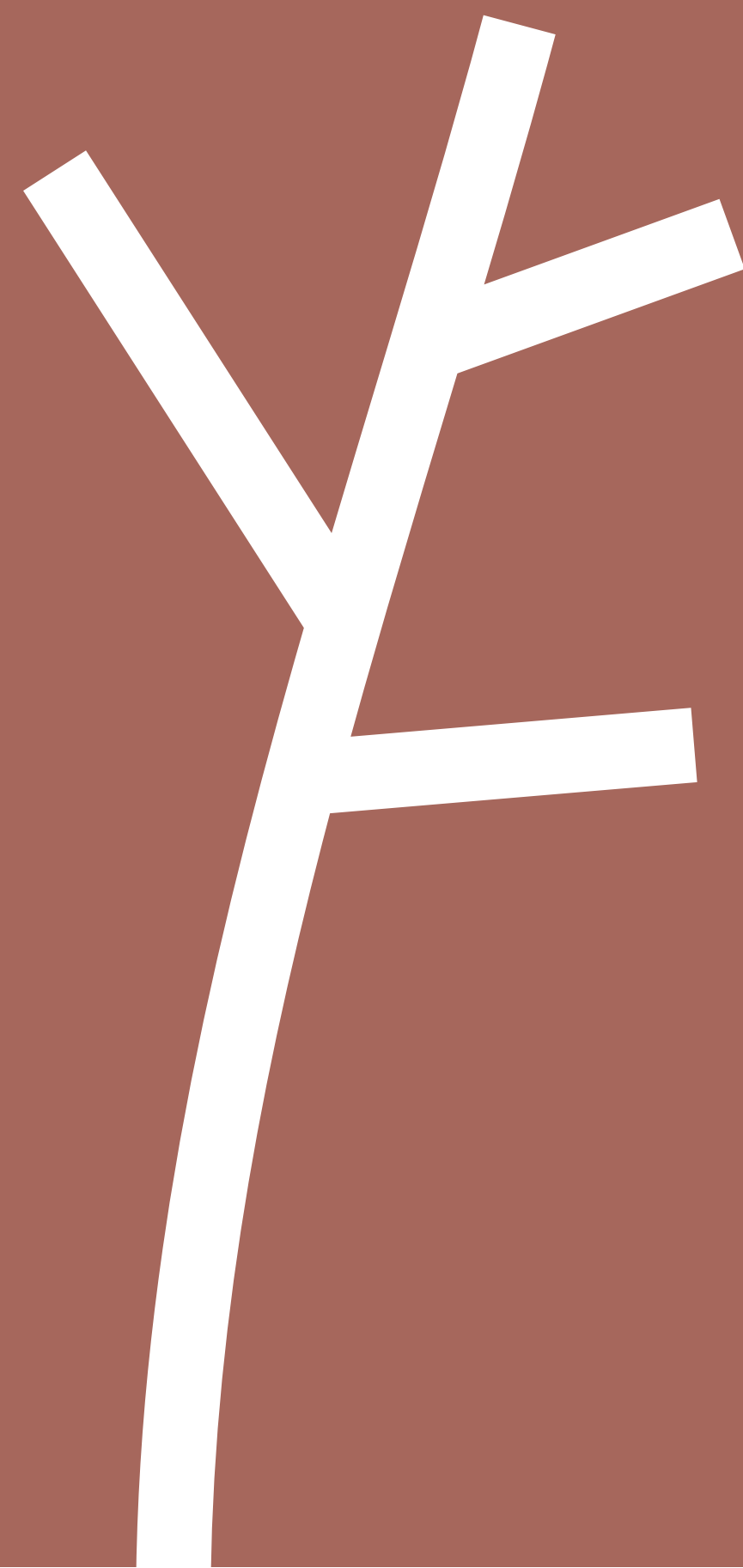
5. Expertise of the project

Estimation of the reliability of the estimated cost,
historical and cultural expertise

6. Contractor identification procedure

Tender, competition...

8. Commissioning the facility



4.

ASSESSMENT OF EXPENSES FOR IMPLEMENTATION
OF THE COMPETITION PROPOSALS AND
ASSESSMENT OF SOCIAL AND ECONOMIC EFFECT
FROM IMPLEMENTATION OF THE CONCEPT

Socio-economic concept

Key factors determining the opportunities and limitations of the Park's territory development

1. External economic factors on the city level

The City garden is the central and key public space of Krasnoyarsk, which forms a spatial connection between the central city square (Revolution Square) and the main city promenade - the Yenisei embankment. That's why the park is considered as a point of attraction for people from all over Krasnoyarsk, including guests of the city, and not only residents of adjacent quarters. So the City Garden is positioned as one of the factors of attractiveness of Krasnoyarsk in the competition among other major cities in Russia for residents, investors and tourists. Key indicators are shown in Table 1.

Krasnoyarsk is one of the 12 largest cities in Russia. Moreover, it is characterized by the fastest population growth rates. Over the past 10 years, the total number of Krasnoyarsk residents has increased by 12.3%. In terms of total investment, Krasnoyarsk is in 9th place, in terms of tourist traffic - in 7th place among the largest cities in Russia.

External effects from the implementation of the park concept will inevitably affect the improvement of the presented parameters of the attractiveness of the city as a whole.

Table 1. Assessment of the attractiveness of Krasnoyarsk for residents, investors and tourists [Source: Rosstat, analysis Urban Pro]

City	Population, tsd. people (2020)	Population growth since 2010, %	Total investments billion RUR. (2018)	Tourist flow, tsd. visitors (2018)
Moscow	12678	10,2	1972,3	23500
St. Petersburg	5398	10,6	658,5	8500
Novosibirsk	1626	10,3	66,1	300
Yekaterinburg	1494	10,7	127,8	550
Kazan	1257	9,9	123,3	1150
Nizhny Novgorod	1252	0,1	96,7	450
Chelabinsk	1197	5,9	52,7	350
Samara	1157	-0,7	84	400
Omsk	1155	0,1	59,8	250
Rostov on Don	1138	4,5	147,3	450
Ufa	1129	6,3	102,7	400
Krasnoyarsk	1094	12,3	83,2	400

1.2. External economic factors on the local level. Pedestrian flows

The key factor influencing the economic model of the park's development is its attendance. In accordance with the provided initial data, the current attendance of the Central Park is in summer: on weekdays up to 5-15 thousand people, on weekends up to 10-20 thousand people, on holidays up to 30-50 thousand people, in winter: on weekdays until 2-3 thousand people, on weekends up to 4-8 thousand people, on holidays up to 5-10 thousand people In terms of a year, the total attendance is about 2.0-2.5 million people, or about 5-6 thousand people on average per day. For comparison, the average attendance of the Gorky park in Moscow is about 40 thousand people a day, the Kirov Park in St. Petersburg - about 10 thousand people a day.

Accessibility analysis of the City Garden, taking into account the population density and the intensity of pedestrian flows, determined using the geomarketing service Mestomer <https://krasnoyarsk.mestomer.com/> showed the following results

Park entrance points	Average pedestrian flow, people per day	Population within a radius of 500 m, people
Karl Marx street (central entrance)	1 500	6 800
Karl Marx street (Looch cinema)	3 100	6 200
Embankment	1 000	2 600
Bograd street	700	4 000
Dzerzhinsky street	500	4 800
Gorky street	200	5 500

The main pedestrian traffic is concentrated along the streets along the perimeter of the park. The most intense latitudinal communications, primarily on the K. Marx street.

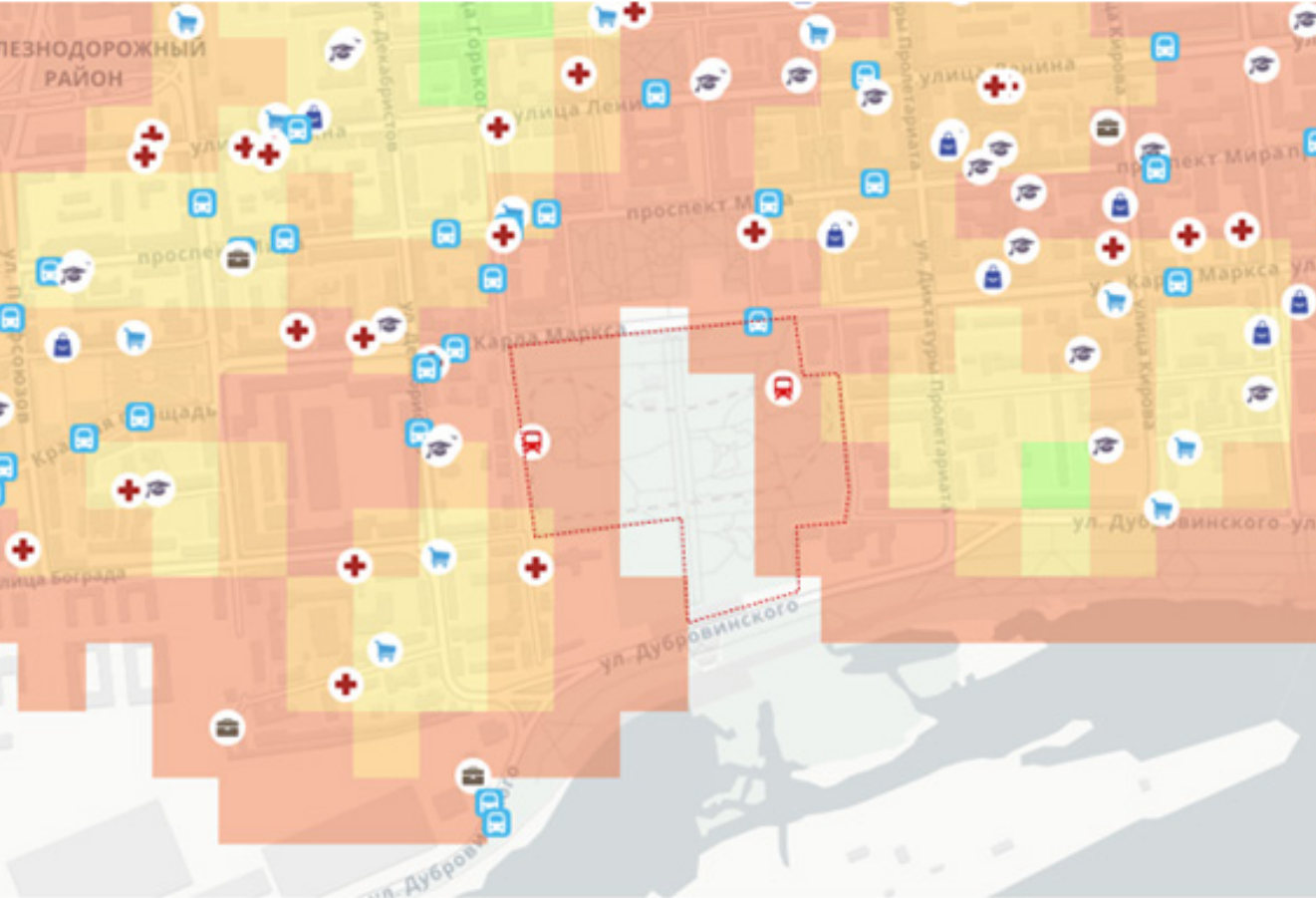


Figure 1. Accessibility of the territories surrounded by the park for the permanent population (areas with the maximum population density within a radius of 500 m are marked in green, and with the minimum density in red). Source: <https://krasnoyarsk.mestomer.com>

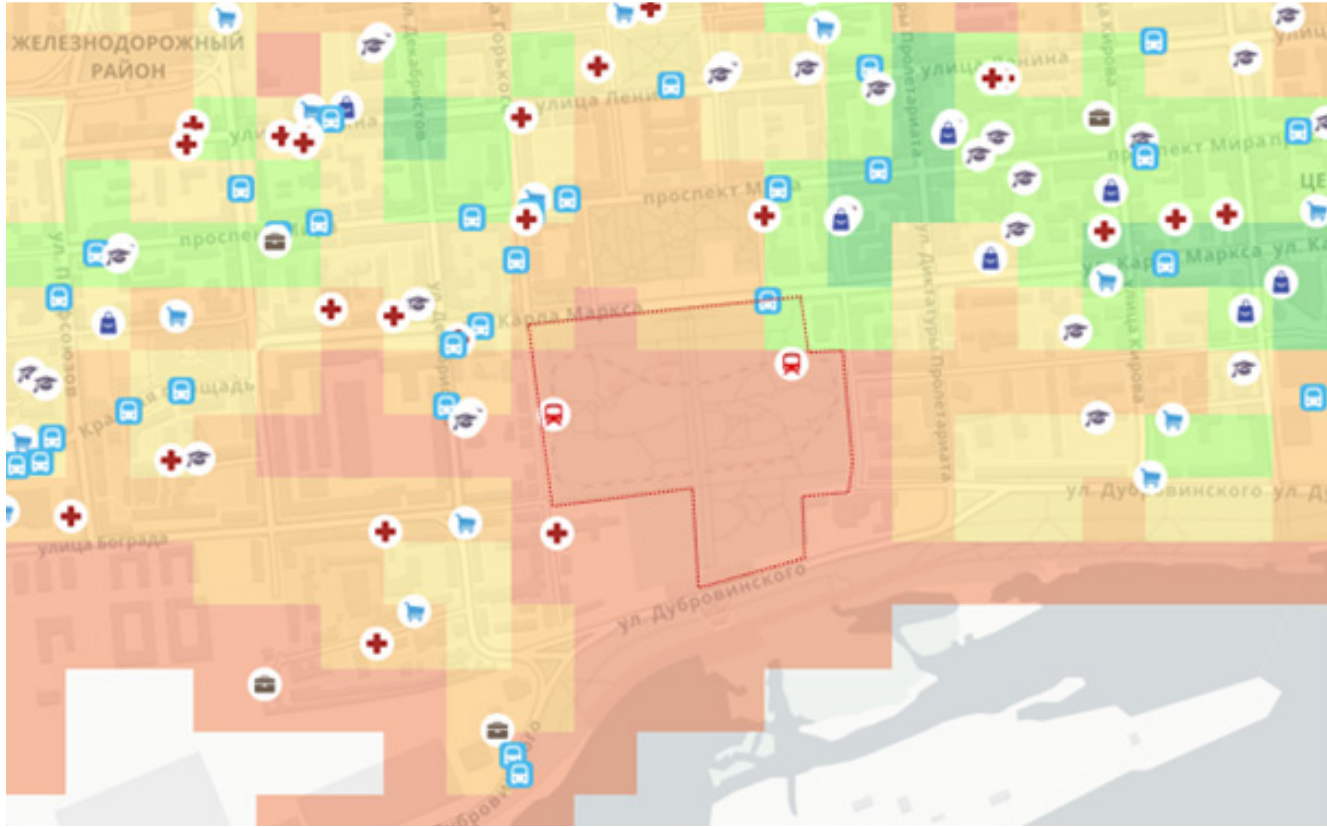


Figure 2. The location of the park in relation to places with high pedestrian traffic (areas with maximum traffic density are indicated in green, areas with minimum traffic density are indicated in red). Source: <https://krasnoyarsk.mestomer.com/>



Figure 3. The intensity of pedestrian flows around the park. Source: <https://krasnoyarsk.mestomer.com/>



Figure 4. The intensity of pedestrian flows around the park. Source: <https://n.maps.yandex.ru/>

1.3. External urban development factors

The City Garden is surrounded by dense and multifunctional urban fabric with numerous centers of attraction and is being transformed in the context of general development trends in the central part of Krasnoyarsk.

On the western side of the park, a project is being implemented to develop the public space of Gorky Street, where a pedestrian zone is being formed. Adjacent to it is the Historical Quarter, where the restoration of buildings is carried out with subsequent adaptation to modern public and business functions and the development of public spaces. Gorky Street and the Historical Quarter will significantly revitalize the western border of the park and will contribute to a significant increase in pedestrian traffic to this area.



Figure 5. Development concept Gorky street and Historical Quarter

From the northern border of the park in the area of the central entrance from the K. Marx street in the future it is planned to build an exit of the metro station "Revolution Square". This will significantly increase the accessibility of the park for city residents and increase its attendance.

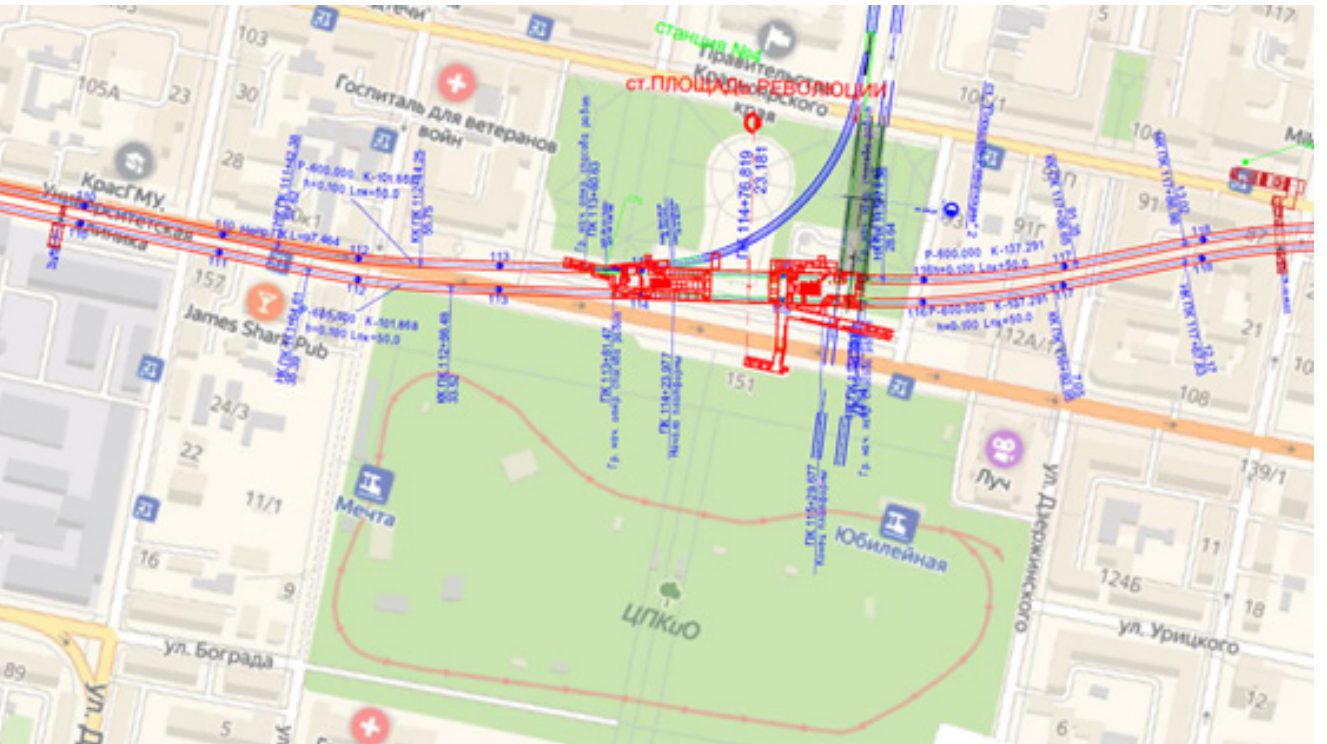


Figure 6. Scheme of the planned location of the metro station "Revolution Square".

From the south-eastern side of the park, it is planned to build a residential complex of 2 high-rise buildings for 180 apartments (up to 500 residents) in the area of intersection of Dubrovinsky street and Diktatory Proletariata street. Construction is currently on hold. If the project is resumed, the neighborhood of the reconstructed park will contribute to the growth of apartment sales and further increase in the park's attendance by local residents.

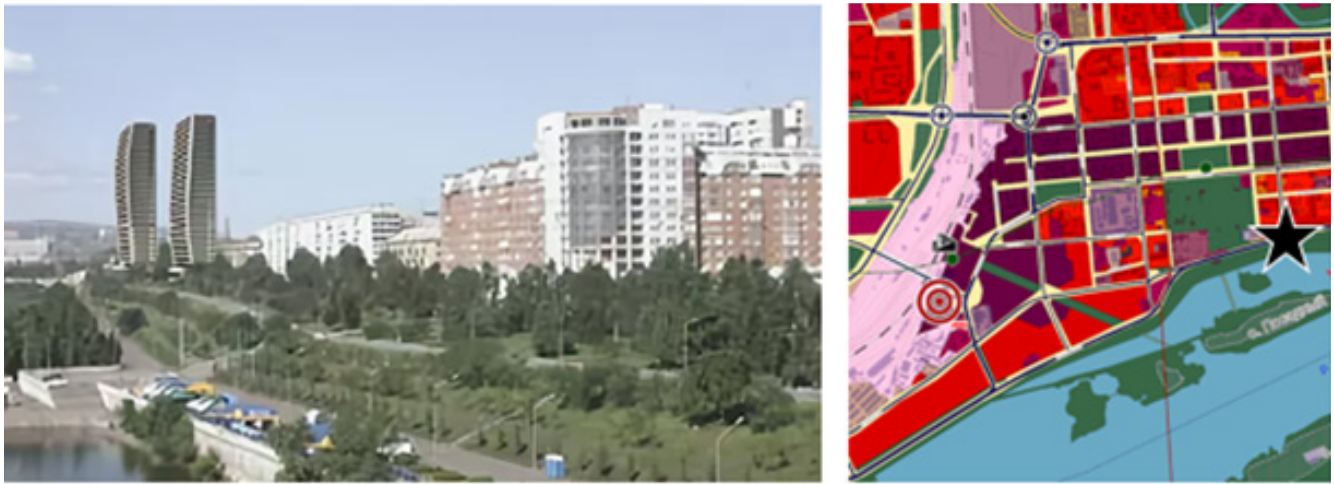


Figure 7. Planned high-rise buildings (residential complex Sternhaus) at the south-eastern border of the park.

On the south-western side of the park, the territory of the former Krasnoyarsk combine plant is being redeveloped. It is planned to build the Novoostrovsky residential complex with a total housing area of 1 million square meters, where up to 50 thousand people will live. The main part of the residential area will be located within a comfortable 15-20 minute walk from the park. This large residential area will increase the intensity of pedestrian flows in the direction from the southwest to the northeast towards Revolution Square and Theater Square.



Figure 8. Planned development of the Novoostrovsky residential area to the southwest of the park.

The implementation of investment projects in the immediate neighborhood of the park will contribute to a significant increase in pedestrian traffic. The reconstruction of the park itself will increase the attractiveness of the real estate being created.

Assessment of expenses for implementation of the competition proposals

The cost of the investor

Expenditures	Price, RUR.	Amount	Total cost, RUR
TOTAL			500 000 000
Pavements			268 112 136
Paving stones, sq. m	4 411	20 000	88 230 000
Plastic curbs	679	3500	2 376 500
Pathways, sq.m	1178	17 002	20 031 756
Sand field, sq.m	1248	700	873 880
Wooden walkways, sq.m	20 000	1300	26 000 000
Artificial pond, sq.m	6 000	10 000	60 000 000
Fountains (rectangular)	17 700 000	2	35 400 000
Round fountains	8 800 000	4	35 200 000
Landscaping			94 696 960
Trees	34 287	500	17 143 800
Bushes	6 504	2 000	13 009 200
perennial plants, sq.m	2 875	20 000	57 504 000
Landscaping of parterre, sq.m	818	8 600	7 039 960
Networks, lighting			40 297 500
Pendant lights	40 000	48	1 920 000
Stands for pendant lights	40 000	93	3 720 000
Floor lamps	54 000	25	1 350 000
Supports for floor lamps	25 000	25	625 000
Bolards	25 000	370	9 250 000
Festive illumination			10 000 000
Installation of lamps			13 432 500
Dismantling			6 000 000
BR 100.30.15	273	3 500	956 900
Stripping of asphalt concrete pavement 12 cm.	246	17 000	4 192 200
Removing 7 cm thick concrete paving stones	79	19000	1 506 700
Dismantling the wooden support (weight of one support 180 kg.)	1 232,6	100	123 260
Small architectural forms			90 893 404
Reconstruction of the summer veranda	10 000 000	1	10 000 000
Chinese style gazebo	3 000 000	1	3 000 000
Russian style gazebo	2 500 000	1	2 500 000
Scene	4 500 000	1	4 500 000
Playground	5 000 000	1	5 000 000
Ferris wheel	30 000 000	1	30 000 000
Carousel	10 000 000	1	10 000 000

Expenditures	Price, RUR.	Amount	Total cost, RUR
Greenhouses	200 000	4	800 000
Bench chaise longue	53 500	20	1 070 000
Benches	38 000	65	2 470 000
Chairs	27 000	39	1 053 000
Urns	25 000	40	1 000 000
Main entrance	5 000 000	1	5 000 000
Other entrances	1 000 000	4	4 000 000
Navigation, augmented reality		1	5 500 000
Repair / restoration of the fence		1200	5 000 404
Extrabudgetary facilities			
Train station + platforms + railway tracks			150 000 000
Bridge to the embankment			250 000 000
Pavilions	10 000 000	23	230 000 000

Sources of financing of the project

Actions	Amount, m. RUR	Source of financing
Actions for Park land improvement	500,0	RUSAL, budget for the implementation of the concept
Actions for the development of the children's railway	50,0	Russian Railways, as part of the charity program
Construction of a bridge to the embankment instead of a dissonant object	250,0	Private investors (the economic model is given in the section " Estimation of income...»)
Pavilions for catering and entertainment	230,0	

Assessment of expenses for implementation of the competition proposals

Evaluation of future park operating costs

Taking into account the analogous objects, the total operating costs of 1 hectare of the park (excluding the operating costs of attractions) will be about 200 thousand RUR per month. Regarding to the total territory of the park, operating costs will be about 3 million rubles per month or 36 million rubles per year.

Evaluation of income from proposed commercial activities

General.

It is proposed to determine the income from the lease of pavilions for catering facilities as the main source of covering the current operating costs of the City Garden. The choice of this type of commercial residents was made due to the possibility of obtaining the maximum rent per square meter of the leased area. This will allow to minimize the territory use for entertainment functions in order to preserve the natural landscape.

The target attendance level of the park after the reconstruction will be on average 10-15 thousand people per day, or 2-3 times more than the current level. The approximate business models of commercial operators were based on an average attendance of 10 thousand people per day.

Approximate Ferris Wheel Business Model

Indicators	Units	Value
Investment in wheel installation	1000 RUR	30 000
Total wheel capacity	places	64
Average park attendance	People per day	10 000
Wheel usage rate	%	3,0
Average number of wheel visitors	People per day	300
Average check	RUR	200
Total revenues	1000 RUR per year	21 600
Share of expenses in the structure of revenue	%	55,0
Net profit	1000 RUR per year	9 700
Payback period	Years	3,1

The business model is built taking into account the indicators of analogous facilities according to a conservative scenario. The total staff is 8 people (administrator, electrician, cashier, boarding operator). The general wage fund is 250 thousand RUR per month.

The total income of the park from the operation of the Ferris wheel is up to 9.7 million RUR in year.

An approximate business model of catering development

The main area for catering facilities is a pedestrian line in the alignment of Bograd street ("Sadovaya Street"). The concept provides for the placement of 12 stationary pavilions for restaurants and cafes, as well as 4 food trucks for street food. In the summer, it is possible to install additional outdoor seats. The pavilion is manufactured in accordance with the design code of the park, taking into account the concept of the object. Taking into account the practice of successful food courts in shopping centers, it is proposed to set the rental rate at 10% of total sales.

Approximate Street Food Business Model

Indicators	Units	Value
Average park attendance	People per day	10 000
Share of visitors making purchases in the selected concept	%	5
Competition coefficient	%	25
Average check	RUR	250
Average revenue of 1 food truck	1000 RUR per day	31
	1000 RUR per month	938
	1000 RUR per year	11 250
Planned rental income of 1 food truck	1000 RUR per day	3
	1000 RUR per month	95
	1000 RUR per year	1 140
Total amount of food trucks	Units	4
Total income from the lease of venues for street food facilities	1000 RUR per year	4 560

Thus, the average rental income of one street food point is about 100 thousand RUR per month. For comparison, the cost of renting one point in the central parks of Moscow is about 350 thousand RUR in the summer and 150 thousand RUR in winter.

The total staff is 2 people (cook and seller) with a 2/2 work schedule. The wage fund is about 160 thousand rubles. The total employment will be 16 people with a wage fund of about 640 thousand RUR per month.

The total income of the park from the lease of sites for food trucks is up to 4.6 million RUR per year.

Approximate business model of cafes and restaurants

It's planned to place 12 stationary pavilions for restaurants and cafes of various formats with a kitchen and a hall for visitors with a total area of each pavilion from 100 to 200 sq. m (up to 30-50 seats). It's possible additionally to place seats on the summer veranda in the warm season as well.

The main parameters of a restaurant (cafe) as a business are presented in the table:

Indicators	Units	Value
Number of visitors	People per day	150
Average check	RUR	800
Average revenue of 1 restaurant	1000 RUR per day	120
Planned income from leasing a pavilion for a restaurant	1000 RUR per day	12
	1000 RUR per month	360
	1000 RUR per year	4 320

The total staff of the cafe is 6-15 people (manager, administrator, cooks, waiters, bartenders, workers). The wage fund is about 420 thousand rubles. The total employment will be about 150 people with a wage fund of about 5,200 thousand RUR per month.

To ensure sustainable demand for catering facilities in the park, it is recommended to take into account the following current international trends:

1. Authenticity



Experts mark the beginning of the transition from globalism to a growing interest in national and regional cuisine and local products. This allows the development of Siberian cuisine concepts in the park.

2. Social responsibility



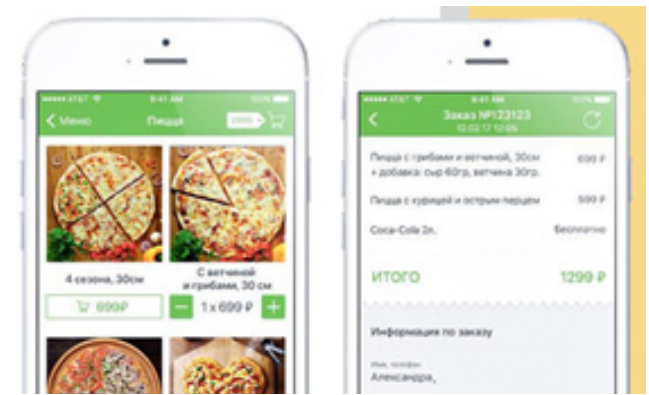
There is an increased interest of consumers in the concepts of catering with a policy in the field of social responsibility (hiring workers with disabilities, supporting socially vulnerable groups, etc.)

3. Sustainability



Sustainability, healthy lifestyle, naturalness, green technologies are the keywords that describe the interests of a very large group of consumers.

4. Digitalization



The food court operates within a joint digital environment, including with a remote ordering and delivery system, the development of services that affect sales growth (collection of picnic baskets, etc.)

The average building cost of a pavilion for a restaurant is 10 million RUR. This amount is not included in the overall park reconstruction budget. For the construction of the pavilions, it is proposed to attract private investors, who will receive rental income from restaurant operators and pay rent for the land plot, which is used to maintain the park's infrastructure. The optimal rent rate was determined using a financial model based on the following parameters:

- Rent rate for restaurant operators: 10% of turnover;
- Internal return rate (IRR) for pavilion investor: 30 %.
- The fee collected in excess of this parameter is directed to the lease of the land plot;
- When stable indicators are reached, the rental business is sold at a capitalization rate of 12% (the asset price is assumed equal to 100 monthly lease payments), which is reflected in the model as the terminal value.

Indicators	Years				Total
	1	2	3	4	
Investments	10000	0	0	0	10000
Pavilion construction	10000	0	0	0	10000
Income	1080	3240	4320	27360	36000
Rental income	1080	3240	4320	4320	12960
Sale of rental business	0	0	0	23040	23040
Costs	389	1166	1555	1555	
Land rent	389	1166	1555	1555	
Cashflow	-9309	2074	2765	25805	21334
Discount rate	1,00	0,77	0,67	0,59	
DCF	-9309	1596	1866	15279	
NPV					9431
IRR					30%

Based on the model, the lease rate for the land plot will be 36% of the rental income of the pavilion owner.

The total income of the park from the lease of 12 sites for pavilions for restaurants and cafes is up to 18.7 million RUR per year.

Approximate business model of leisure and entertainment facilities

It's planned to place 11 stationary pavilions with an area of up to 200 sq. m for leisure and entertainment facilities of various formats (attractions, children's centers, etc.). Their functionality is determined at the next design stages. The approximate parameters of the center are following:

Indicators	Units	Значения
Number of visitors	People per day	340
Average check	RUR	250
Average revenue of 1 restaurant	1000 RUR per day	85
Planned income from leasing a pavilion	1000 RUR per day	8,5
	1000 RUR per month	255
	1000 RUR per year	3 060

The total staff of the center is 4-6 employees. The wage fund is about 200 thousand RUR. The total employment will be about 60 people with a wage fund of about 2,400 thousand RUR per month.

The average pavilion building cost a pavilion is 10 million rubles. This amount is not included in the total park reconstruction budget. For the construction of the pavilions, it is proposed to attract private investors, who will receive rental income from operators and pay rent for the land plot, which is used to maintain the park's infrastructure.

The optimal rent rate was determined using a financial model based on the following parameters:

- Rent rate for restaurant operators: 10% of turnover;
- Internal return rate (IRR) for pavilion investor: 30 %.
- The fee collected in excess of this parameter is directed to the lease of the land plot;
- When stable indicators are reached, the rental business is sold at a capitalization rate of 12% (the asset price is assumed equal to 100 monthly lease payments), which is reflected in the model as the terminal value

Based on the model, the lease rate for the land plot will be 10% of the rental income of the pavilion owner.

The total income of the park from the lease of sites for 11 pavilions for leisure and entertainment facilities is up to 3.7 million RUR per year.

Indicators	Years				Total
	1	2	3	4	
Investments	10000	0	0	0	10000
Pavilion construction	10000	0	0	0	10000
Income	765	2295	3060	26010	32130
Rental income	765	2295	3060	3060	9180
Sale of rental business	0	0	0	22950	22950
Costs	77	230	306	306	
Land rent	77	230	306	306	
Cashflow	-9312	2066	2754	25704	21212
Discount rate	1,00	0,77	0,67	0,59	
DCF	-9312	1589	1859	15219	
NPV					9356
IRR					30%

Approximate business model of a multifunctional facility with access to the embankment

Beyond the Park concept, the possibility of demolishing an existing discordant shopping facility and placing a modern public space with a bridge, observation deck, and shopping and entertainment facilities in its place is being considered. The initial indicators for modeling are shown in the table:

Indicators	Units	Figures
The total investment	million RUR	250,0
Leasable area, GLA	thousands sq.m.	4,0
Rental rate per month	thousands RUR per sq.m.	1,8

As can be seen from the enlarged financial model, the object potentially has a high attractiveness for a private investor. In addition, the project will attract an additional cash flow of more than 8 million rubles per year, which can be directed to the development of the Park's infrastructure.

Indicators	Years				Total
	1	2	3	4	
Investments	250000	0	0	0	250000
Pavilion construction	250000	0	0	0	250000
Income	0	43200	86400	734400	864000
Rental income	0	43200	86400	86400	216000
Sale of rental business	0	0	0	648000	648000
Costs	0	4320	8640	8640	
Land rent	0	4320	8640	8640	
Cashflow	-250000	38880	77760	725760	592400
Discount rate	1,00	0,77	0,67	0,59	
DCF	-250000	29917	52486	429708	
NPV					262111
IRR					30%

The implementation of this object is considered for the future and is not taken into account when calculating socio-economic effects.

The overall ratio of operational expenditures and revenues of the Park

Indicators	Units	Figures
Expenses for the current maintenance of the Park	m. RUR per year	36,0
Income from commercial activities	m. RUR per year	36,7
Ferris wheel	m. RUR per year	9,7
Sites for leisure and entertainment pavilions	m. RUR per year	4,6
Sites for cafes and restaurants	m. RUR per year	18,7
Food truck sites	m. RUR per year	3,7

Assessment of direct economic and social effects

The direct socio-economic and budgetary effects of the Implementation of the urban garden development concept include investment, the number of new jobs, attendance, as well as the growth of tax revenues to budgets of all levels.

The evaluation of these effects is shown in the table:

Indicators	Units	Figures
The total amount of private investment	million RUR	1 030,0
including RUSAL (charity program)	million RUR	500,0
including Russian Railways (charity program)	million RUR	50,0
including other investors (investments in the development of commercial facilities)	million RUR	480,0
Attendance growth (average for the year)	person per day	10 000 – 15 000
New jobs	person	315
Growth of tax revenues to the consolidated budget	m. RUR per year	19,8
Income tax, simplified taxation system	m. RUR per year	2,7
The tax to incomes of physical persons	m. RUR per year	19,6

Thus, the total revenue from the Park’s commercial activities fully covers the operating costs at the necessary and sufficient level, with the absolute priority of the natural and landscape recreational function.

The calculations were made according to a conservative estimate, and can be adjusted in the future in a larger direction.

For 1 ruble of RUSAL funds allocated for Park improvement, there is 1 ruble of private investors ' funds allocated for the development of commercial facilities and centers of attraction that will ensure the economic sustainability of the Park.

Assessment of external economic and social effects

The return on investment in the development of the park is ensured, first of all, due to external effects, such as an increase in the attractiveness of the city for residents, investors and tourists and, as a consequence, indirectly due to an increase in real estate capitalization.

City scale

Speaking about the scale of the city center, we consider it necessary to pay attention to the development of territories within a comfortable walking distance from the park. A large residential complex Novoostrovsky is developing in the southeast direction with a total housing area of over 1 million square meters. According to preliminary estimates, the increase in the capitalization of apartments for sale within a radius of 15-20 minutes accessibility of the City Garden will be at least 5%. In absolute terms, this is at least 2 billion rubles, or 4 times more than the total volume of investments in the development of the park. This creates the preconditions for the developer to attract additional funds for infrastructure and public spaces.

Federal scale

Speaking of the federal scale, we believe that the development project of the City Garden as a visiting card of Krasnoyarsk can become an important component of increasing the city's competitiveness for residents, investors and tourists. Today Krasnoyarsk is one of the 12 largest cities in the country. Among them, the city ranks 9th in terms of investment, 7th

in terms of tourist flow, 4th in terms of attractiveness for its own residents and in 1st place in terms of population growth over the past 10 years. Thus, the park project symbolizes Krasnoyarsk's bid for the role of the key center of the entire Siberian macroregion.

Mass polls of residents, conducted by the Domofond agency on 10 factors of the attractiveness of the country's largest cities, showed that the key limitation of the development of Krasnoyarsk is the environmental factor. In this regard, it is the environmental agenda that will receive the most positive response from the city residents and should become the key thematic line of the City Garden to maximize the image of Krasnoyarsk as a whole. The indirect effects of image enhancements are difficult to assess. But one way or another, a consequence of the increase in the attractiveness of the city is the growth of real estate capitalization. On a city-wide scale, an increase in the cost per square meter of housing by only 1% (which is actually achievable with an improvement in the environmental image) means a cumulative increase in the capitalization of residential real estate by more than 23 billion rubles. This is a direct increase in the welfare of Krasnoyarsk residents, which will be almost 50 times higher than the volume of investments in the development of the City Garden.

Assessment of the social and economic effect from implementation of the competition proposals

Direct fiscal externalities from the implementation of the urban garden concept were estimated at the expense of direct tax revenues from commercial activities.

Taxes	Tax base	Tax rate	Tax amount per year
Income tax, simplified taxation system	37 m.RUR/year	6 %	2,2 m. RUR
Personal income tax	234 employees	13 %	17,6 m. RUR
Total			19,8 m. RUR

Indirect budgetary effects due to an increase in the capitalization of real estate in Krasnoyarsk at a personal property tax rate of 0.1% are estimated at 23 million RUR/ year.

Additional social effects

Key indicators	Units	Current state	Prospect
Increase of a number of the crowded newsworthy events (sport, culture and recreation, entertainment, etc.) within the territory of the Park	Units	58	120
Migration outflow from Krasnoyarsk	Person per year	38 600	24 000
Average life expectancy in Krasnoyarsk	Years	71	75
Crime rate	Units	21,4	15,4

The concept is based on the principle that the City Garden will break even for the city and the management company. Commercial activity is allowed in order to cover the park operation costs.

The amount of entertainment functions will be reduced in order to preserve the natural landscape. In this case, catering facilities will become key generators of cash flow. Nevertheless, we do not try to maximize profits directly from the operation of park facilities. First of all, we focus on external effects on the scale of the City center and scale of Krasnoyarsk as a whole.



