

The City Planning Cadastre System of the city of Moscow as a tool for sustainable urban development

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The goal of creation, implementation and functioning of the city planning cadastre system (SPCS) of the city of Moscow is provision of all the stakeholders (regulatory bodies, investors, construction organizations, private builders, citizens etc) with relevant, trustworthy and legally valid information for decision-making, planning of investments, designing and supervision over the city development from the city authorities and society.

SPCS is mounted on the unified state cartographic base of Moscow supplied by the specialized city enterprise – the Trust for Geologic, Geodesic and Cartographic Works (MosGorGeoTrust).

The information presented by SPCS includes the data about current state and utilization of the city territory, city planning regulations, construction and architectural projects under way, worth of separate urban areas. At present SPCS contains more than 40 information resources registered in the Unifies Registry of Information Resources and Systems of the city. These are, in particular: schemes of functional (end use of an area), construction (height and density of housing) and landscape (arrangement of the ground surface) zoning of the Moscow territory; map of city planning regulation lines; data on the Moscow natural complex including historical and cultural monuments; conservations zones.

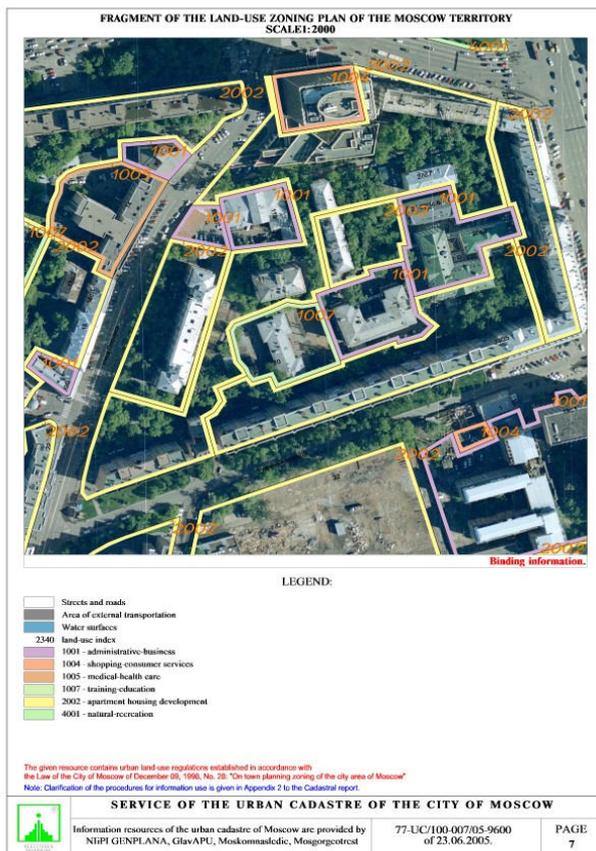


Fig 1. Fragment of building zoning

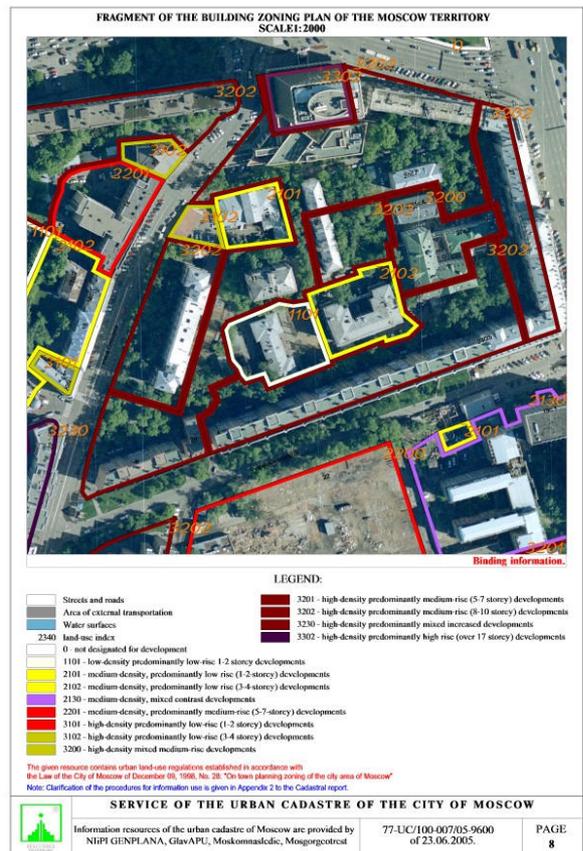


Fig.2 Fragment of functional zoning

SPCS also contains the data on underground engineering network (including diameters, capacity and material of pipes) and a lot of other useful information. Under the existing variety of ownership patterns on the urban territories established by the Russian Land Code, SPCS becomes capital instrument ensuring sustainable and transparent management of urban development of a city of any size.

Choosing the strategy of the city planning cadastre development the Moscow government proceeded from the following priorities:

- maintenance of optimal balance between the interests of the city and the society;

- preservation of historical image of the city;
- strict observation of sanitary and ecological regulations;
- upgrading and development of engineering and transport infrastructure;
- improvement of the investment climate due to increase of awareness of potential investors and creation of economic inducements for investments in real estate;
- perfection of democratic mechanisms of the city management by way of involvement of social organizations and eminent public figures into decision-making process and supervision over implementation of the decisions taken.

Today SPCS is a computerized information system operating according to the principle of “one window”. This means that all the information is given to an applicant in one organization – Urban Cadastre Service of the city of Moscow in the form of unified document (cadastral report) and following the standard procedure established by the city administration. Cadastral report is available both in paper and electronic form.

Usage of the city planning cadastre information is obligatory. It means that any decision concerning allotment or utilization of a land plot in the city is taken by the city authorities with consideration of the data held in the cadastral report.

SPCS embodies the principle of equal access to the information resources. This means that any legal or natural person gets the cadastral report on even terms. During 8 years of operation SPCS has served more than 20 000 applicants and no one has ever been turned down.

Input, verification, storage and delivery of the city planning cadastre information have been materialized with the help of up-to-date information technologies on the base of high-duty computer system. Graphic information is processed on the basic platform “Microstation” and semantic data – on “Oracle” base. Application technologies have been worked out by the specialists of the Urban Cadastre Service. Information database of the Urban Cadastre Service contains over 80 MB of information that enables to prepare cadastral report for any part of the city territory within several hours.

8 year practice of SPCS application in Moscow has allowed to avoid the most expensive errors in municipal development – the errors in city planning. That contributed to rational utilization of budgetary funds, accelerated development of the urban infrastructure and in the whole – to the improvement of the quality of human life in Moscow. Application of SPCS in many respects determined positive changes in the architectural and historical appearance of the city, allowed to preserve many objects of cultural heritage.

Apart from ensuring systematic and sustainable development of the city the city planning cadastre plays important role in improving technological effectiveness and administration efficiency, coordination of activity of different institutions on the metropolitan territory. The experience of creation and operation of SPCS in Moscow has been successfully applied in a number of Russian cities such as Yakutsk, Surgut, Sochi.

SPCS of Moscow has gained international acknowledgement having won the title of “good practice” in 2004 at the contest, which is held every 2 years by the UN Human Settlements Programme (UN-HABITAT) with the view of revealing the best initiatives in formation of favorable and sustainable environment. In 2004-2006 SPCS of Moscow had been exhibited at the annual international fair “Expo Real” in Munich where it had always evoked great interest from the city authorities and business circles both of Germany and other countries.

In the Summary of the International Expert Group Meeting held in October 2005 in Moscow under the aegis of UN-HABITAT and devoted to innovative land tools it was mentioned that SPCS of Moscow is unique and has no counterpart in the world. From the other hand this system is universal and can be adapted both to big and little cities worldwide.