

Technology and organization of construction

STUDY OF SYSTEMS FOR ASSESSING VERTICAL GREENING OF BUILDINGS IN THE SOUTHERN REGIONS OF RUSSIA

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The purpose of the work is to analyze the main types of vertical gardening systems and their impact on energy saving of buildings and structures. A comparative characteristic of vertical landscaping systems is given for a number of parameters, based on this characteristic, a conclusion is made about the conditions and parameters of the use of systems, as well as about the effect that these systems have on the building.

Keywords: vertical gardening, energy saving, energy efficiency, facades, green buildings, green construction.

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ANALYSIS OF DOMESTIC AND FOREIGN EXPERIENCE IN THE DESIGN OF AMBULANCE BUILDINGS

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There is an identification, study of the main similarities and detection of rashes and cases of diseases for medical purposes using examples of domestic and foreign experience. Domestic experience is presented in cities that are expanding health care reforms to a greater extent: Moscow, Kazan, St. Petersburg. World experience in reflecting countries with a high efficiency of the health care system: Germany, Israel, Singapore.

Keywords: health, medical institutions, the Republic of Sakha (Yakutia), population, regulatory document, medical care, architectural and planning structure, world and domestic experience, healthcare system, spatial distribution

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EFFECT OF PLASTICIZER TYPE AND CONCENTRATION ON DYNAMIC MECHANICAL PROPERTIES OF FILLED POLYMER MIXTURE BASED ON BUTYL RUBBER

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The article presents the results of studies of the effect of CaCO₃ filler concentration on the dynamic mechanical properties of mixtures of butyl rubber with plasticizers of various polarities (industrial oil, dioctyl phthalate, chlorinated paraffin). The leading research method was a comparative analysis of the temperature-frequency dependences of the tangent of the mechanical loss angle and the modulus of elasticity obtained by the DMA method.

Keywords: modulus of elasticity, mechanical loss tangent, butyl rubber, plasticizers - industrial oil, chlorinated paraffin, dioctyl phthalate, CaCO₃ filler.

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Environmental safety of construction and urban economy

ANALYSIS OF THE CONDITION OF SOLID WASTE COLLECTION SITES IN RESIDENTIAL COMPLEXES OF THE CITY OF VORONEZH

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The article deals with the issues of solid household waste management in the residential areas of the city of Voronezh. The main problems concerning the management of solid household waste in the territory of the Russian Federation are analyzed. Monitoring and photofixation of the filling capacity of waste collection containers was carried out on the example of 5 residential complexes in the city of Voronezh. The most peak days of container loading have been determined, as well as the current state of the solid waste collection zone.

Keywords: solid household waste, solid waste, waste management, residential complexes

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Urban planning, planning of rural settlements

ASSESSING THE QUALITY OF THE ARCHITECTURAL AND HISTORICAL ENVIRONMENT IN THE EXAMPLE OF THE RESTORATION OF ENGINEERING STRUCTURES IN THE CITY OF BORISOGLEBSK VORONEZH REGION

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The article deals with the problem of assessing the visual combination of modern buildings and historic structures on the example of brick entrance gate of arch type. An analysis of the architectural and historical environment of Borisoglebsk has been carried out. It is understood that the creation and actual use of methods of aesthetic assessment of quality on an objective scientific basis will provide an opportunity to regulate the visual culture of the architectural and spatial environment of Borisoglebsk.

Keywords: historic buildings, passage gates, qualimetry, quality indicator, aesthetic properties, quantitative assessment, technical condition.

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Lifecycle management construction objects

RESEARCHING OF THE APPLICATION OF SOLAR PANELS TO INCREASE ENERGY SAVING OF THE EQUESTRIAN COMPLEX

E.E. SEMENOVA, T.V. BOGATOVA, D.A. ZYKOVA

The article presents a comparative analysis of various components of solar panels, as well as their type of manufacture and determination of the feasibility of using them for equestrian buildings. Particular attention is paid, in particular, to the technical characteristics and methodology for calculating the resource intensity of the material. The requirements and necessary conditions for their successful application in construction are considered.

Keywords: solar panels, equestrian center, energy saving, energy efficiency

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System analysis, management and information processing (in construction and architecture)

FORMATION OF A DATABASE FOR URBAN PLANNING ASSESSMENT OF THE PLACEMENT OF BUILDINGS AND UNIVERSITY INFRASTRUCTURE FACILITIES

E.E. PROKSHITS, YA.A. ZOLOTUKHINA

The article discusses the tools for the formation of a database necessary for urban planning assessment of the current state of university territories. The option of using GIS technologies is considered. The most convenient web resources for graphical display of academic buildings, dormitories and other university infrastructure facilities are highlighted. The possibilities of 2GIS and Google My Maps services for layer-by-layer display of objects and construction of various types of routes are analyzed.

Keywords: campuses, urban planning assessment, GIS technologies, 2GIS, Google My Maps, databases

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APPLICATION OF SYSTEM ANALYSIS METHODS IN SOLVING THE PROBLEM OF NOISE CONTROL IN THE URBAN ENVIRONMENT

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The main approaches to solving the problems of combating urban noise from the point of view of system analysis are considered. The main factors influencing the noise level during the movement of vehicles are given. The criteria for assessing the noise load are determined, with the help of which it is possible to perform a numerical analysis of the propagation of noise in urban areas.

Keywords: urban noise, noise load, noise factors, numerical analysis, evaluation criteria

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